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 Art Unit: 2134 Phone Number 305-9586 Serial Number: 09/527,971
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Title of Invention: Pre-filtering to increase signal to noise ratio (SNR)

Inventors (please provide full names): Geoffrey ~~Rhodes~~ Rhodes, Adnan Alattar,
Ravi Sharma; & Ammon E. Gustafson

Earliest Priority Filing Date: 5/8/1995.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

I would like to request a search for an earlier journal, conference, or publication of:

- ① any digital watermark
- ② pre filtering signature
 - filtering by Laplace or Fourier Xforms.
 - manipulation of signal-noise-ratio; SNR
 - any earlier documents by the inventors.
 - any copuration products that does filtering of water marks (prior to date above).
 - see attached. (abstracts, clms, patent

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SEARCH REQUEST FORM

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Title of Invention: Pre-filtering to increase watermark signal to noise ratio

Inventors (please provide full names): Geoffrey Rhoads; Adnan Alattar;
Ravi Sharma

Earliest Priority Filing Date: 5/8/95

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

① Please search for the earliest watermark detection system

- characteristic ; trait, } filtering
- noise
- pre-filtering

Please also see if

Scott A. Moskowitz (6,522,767 B1) has any earlier pubs, conferences, journals
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Image Processing, 1996. Proceedings., International Conference on , Volume 1 , 16-19 Sept. 1996

Pages:237 - 240 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(520 KB\)\]](#) **IEEE CNF****2 Image watermarking using DCT domain constraints***Bors, A.G.; Pitas, I.;*

Image Processing, 1996. Proceedings., International Conference on , Volume 3 , 16-19 Sept. 1996

Pages:231 - 234 vol.3

[\[Abstract\]](#) [\[PDF Full-Text \(576 KB\)\]](#) **IEEE CNF****3 Phase watermarking of digital images***Ruanaidh, J.J.K.O.; Dowling, W.J.; Boland, F.M.;*

Image Processing, 1996. Proceedings., International Conference on , Volume 3 , 16-19 Sept. 1996

Pages:239 - 242 vol.3

[\[Abstract\]](#) [\[PDF Full-Text \(848 KB\)\]](#) **IEEE CNF****4 A watermark for digital images***Wolfgang, R.B.; Delp, E.J.;*

Image Processing, 1996. Proceedings., International Conference on , Volume 3 , 16-19 Sept. 1996

Pages:219 - 222 vol.3

[\[Abstract\]](#) [\[PDF Full-Text \(380 KB\)\]](#) IEEE CNF

5 Proceedings of 3rd IEEE International Conference on Image Proces:

Image Processing, 1996. Proceedings., International Conference on , Volume 1 , 16-19 Sept. 1996

[\[Abstract\]](#) [\[PDF Full-Text \(2268 KB\)\]](#) IEEE CNF

6 Digital watermarks for audio signals

Boney, L.; Tewfik, A.H.; Hamdy, K.N.;

Multimedia Computing and Systems, 1996., Proceedings of the Third IEEE International Conference on , 17-23 June 1996

Pages:473 - 480

[\[Abstract\]](#) [\[PDF Full-Text \(744 KB\)\]](#) IEEE CNF

7 Watermarking digital images for copyright protection

Boland, F.M.; O'Ruanaidh, J.J.K.; Dautzenberg, C.;

Image Processing and its Applications, 1995., Fifth International Conference on , 6 Jul 1995

Pages:326 - 330

[\[Abstract\]](#) [\[PDF Full-Text \(408 KB\)\]](#) IEEE CNF

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Watermarking Digital Images for Copyright Protection

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Abstract

A watermark is an invisible mark placed on an image that can only be detected when the image is compared with the original. This mark is designed to identify both the source of a document as well as its intended recipient. This paper discusses various techniques for embedding such marks in grey scale and colour digital images.

1 INTRODUCTION

Computers, printers and high rate transmission facilities are becoming less expensive and more generally available. It is now feasible and very economical to transmit images and video sequences using computer networks rather than sending hard copies by post. In addition, images may be stored in databases in digital form. A major impediment to the use of electronic distribution and storage is the ease of intercepting, copying and redistributing electronic images and documents in their *exact* original form. As a result, publishers are extremely reluctant to use this means of disseminating material.

The commercial possibilities for the World Wide Web are steadily becoming more appreciated. However it is clear that in order for these possibilities to be realized that an integrated approach for the secure handling, issue and duplication of issued documents is required.

Brassil et al. [1] have investigated different methods for marking text within documents with a unique binary code word which serves to identify legitimate users of the document. The code word is embedded in the document by making subtle modifications to the structure of a document such as modulation of line width and interword spacing as well as modification of character fonts. The presence of the code word does not visibly degrade the document, but can be readily detected by making a comparison with the original. Standard document handling operations such as photocopying and scanning do not remove the mark.

The same idea may be extended to include the protection of images. In this paper, we begin by specifying the requirements that an effective image watermarking scheme must possess. A review of current techniques is presented and novel techniques based on image transforms are then described.

1.1 REQUIREMENTS FOR WATERMARKING ALGORITHM

The work in this paper examines strategies for the watermark to meet the following criteria:

- The image must not be visibly degraded by the presence of the mark while at the same time a unique identifier with high information content is produced.
- The mark must be readily recoverable by some form of comparison with the original image.
- The mark must be strongly resistant to detection and decoding without access to the original. It must be strongly resistant to attack and it should cause a significant loss of image quality for it to be destroyed. In addition, the mark must be tolerant to reasonable quality lossy compression of the image.

1.2 DIGITAL COMMUNICATIONS

The task of embedding a watermark in an image and detecting and decoding the mark may be regarded as a problem in digital communications. There are three components [2] in the solution of this problem:

- Form of transmission pulse must be identified that can transmit information reliably and yet introduce no artifacts visible even to a very careful observer.
- Digital signal modulation techniques are required to place the desired information onto the transmitted pulses.
- Innovative error-control coding and digital signature techniques are required to ensure reliable and secure communication of the mark as well as authentication of the encoded message.

It will be assumed without loss of generality that the mark is encoded in the form of a binary bit string.

The factors affecting the choice of form of transmission pulses are quite complex. First, there is the need for robustness. Any operation that may be carried out on the image can degrade transmission of the watermark. The second factor is visibility. Intuitively, one can see that less information can be hidden on flat featureless regions of the image. It should be possible to incorporate more information into those parts of the image that contain more texture or around edges. Psychovisual phenomena are obviously factors in the transmission of hidden information.

Kurak and McHugh [3] have considered the possible application of redundant features in an image to the transmission of information. Their concern was the transmission of dangerous viruses (or "Trojan horse programs") in the low order bits of a data stream. They note that merely viewing an image is not sufficient for detecting the presence of some form of corruption. Depending on the texture of the image and the quality of a computer monitor it is possible

to exploit the limited dynamic range of the human eye to hide low quality images within other images. Walton [4] has developed a technique for introducing checksums in the low order bits of an image to prevent unauthorized tampering. Dautzenberg and Boland [5] examined using the low order bits as a possible part of a scheme for introducing watermarks into images. This approach gave very poor results because standard lossy compression schemes, such as JPEG [6], tend to have the effect of randomizing the low order bits during the quantization stage of image compression.

2 THE BLOCK MEAN APPROACH

Dautzenberg and Boland [5] and Caronni [7] have investigated another simple technique for embedding watermarks in images. An image may be divided up into blocks. The mean of each block may then be incremented to encode a '1' or decremented to encode a '0' (or vice versa). This is termed bi-directional coding. Alternatively, the mean may be incremented to encode a '1' and be left untouched to encode a '0'. This is termed unidirectional coding. Of the two forms of coding bi-directional coding is the more robust but unidirectional coding has the advantage that it is possible to arrange matters that a watermark can be detected without comparing the image to the original. Dautzenberg and Boland examined two different approaches for placing the blocks inside images:

Chessboard pattern: The blocks are arranged side by side to tile over the entire image.

Blocks with borders pattern: The blocks are arranged side by side, but are surrounded by a border which is not marked.

The block-mean approach suffers from the grave disadvantage that an enemy that is in possession of a number of independent copies of the image can compare the different copies and read most, if not all, of the encoded message. Caronni shows that the expected number of undetected bits decreases exponentially with the number of copies. Caronni combats this particular weakness by randomizing both the size of the blocks as well as the positions of the blocks inside the image.

Despite its simplicity, the block-mean method of marking images has proven to be highly robust to lossy image compression, photocopying and colour scanning and dithering.

The number of bits that may be encoded using the block-mean approach equals the number of blocks, and this in turn depends on the size of the image and the block size, as well as the width of borders around blocks. Realistically, the number of bits that one can expect to encode is in the order of one hundred bits. This capacity may be adequate for some applications, even after taking into account the need for redundancy in the code for error detection and correction as well as code word authentication. However, this capacity is quite tiny in comparison with the storage required for the image.

3 THE WATERMARKING ALGORITHM

It is possible to achieve much higher storage capacities using image transform coding techniques [8]. Candidate image transforms are based on standard image compression techniques and include the use of the Discrete Cosine Transform [6, 9], Wavelet Transforms [10], Walsh-Hadamard Transform [8, 11] and the Fast Fourier Transform.

3.1 THE ALGORITHM

This subsection describes the watermarking algorithm. First, a simple form of modulation for placing bits on an image is outlined. Second, a technique for determining the number of bits to be placed at given locations in the image is also described.

3.1.1 Amplitude Modulation The following algorithm, which is a hybrid between amplitude modulation and frequency shift keying has been applied to watermarking:

1. Divide image into blocks.
2. Subtract the mean of the block from each pixel in the block.
3. Normalize pixel values within each block so that they range between -127 and 127.
4. Carry out transform on image block.
5. Modulate selected coefficients of the transformation (e.g. using bi-directional coding).
6. Reverse the transformation and replace the image block in the image.

Watermark detection is easily performed by carrying out the above operations on the original image and the watermarked image in parallel and comparing the values of the coefficients. Note that the block-mean approach is a special case of the above. If the Discrete Cosine Transform (or "DCT") is used in step 4 above to transform the image sub-blocks then the mean value will be one of the coefficients present, although it will never be marked unless step 2 is removed.

Zhao and Koch [12] have investigated an approach to watermarking images based on the JPEG image compression algorithm. Their approach is to segment the image into individual 8×8 blocks. Only eight coefficients occupying particular positions in the 8×8 block of DCT coefficients can be marked. These comprise the low frequency components of the image block, but exclude the mean value coefficient (at coordinate (0,0)) as well as the low frequencies at coordinates (0,1) and (1,0). Zhao and Koch also take the precaution of placing the blocks at random positions in the image in order to make a successful attack by an enemy less likely.

3.1.2 The number of bits The first stage in embedding a bit stream in an image is to determine the number of bits that can be placed into a given image block. A very simple method based on Parseval's Theorem [2] will now be described.

In a highly textured image block energy tends to be more evenly distributed amongst the different DCT coefficients. In a flat featureless portion of the image the dominant energy components tend to lie at the low frequency end of the spectrum.

As stated above, the aim is to place more information bits where they are least noticeable. This may be accomplished by using a simple thresholding technique. The steps are as follows:

1. Sort the DCT coefficients in order according to absolute magnitude.



Figure 1: Standard grey scale image of Lena. The size of image is 512×512 pixels.



Figure 2: Lena weakly watermarked using blocks with borders.

2. Starting with the largest, sum the energies in each component, until a predetermined threshold (usually a simple proportion ϵ of the total energy) is exceeded.
3. Set the number of bits to be placed in this block equal to the number of components required to exceed the threshold.

This approach of placing bits where they are least visible can be a potential weakness. Lossy image compression algorithms are designed to disregard redundant information. Information bits placed within textured areas of the image are therefore more vulnerable to attack. Therefore, there is a compromise to be reached between hiding a large number of information bits where they can least be seen, but where they can be attacked by image compression algorithms, or placing fewer bits on less textured but safer portions of the image. This may be achieved by opting for a moderately low value of threshold (e.g. $\epsilon \approx 0.7$).

It is worth noting that the number of bits that can be encoded using image transforms far exceeds that of the block-mean approach. The expected capacity is in the order of 1000 bits for a typical image. In the case of Zhao and Koch's method 8 bits of information are encoded into each 8×8 block. If the blocks are tiled over the image then overall one could obtain a maximum code rate of 0.125 bits/pixel.

3.2 OTHER TRANSFORMS

The DCT is not the only image transform that may be used for watermarking. Other transforms that may be used include:

Walsh transforms: The Walsh-Hadamard transform [8, 13] can be viewed as a generalization of the block-mean approach described above. In this

composed entirely of elements with value 1 or -1 only. The Walsh-Hadamard transform can be implemented using as a fast algorithm.

Wavelet transforms: The wavelet transform has been shown to give good compact representation of image texture. This suggests that it may have powerful watermarking properties. Fast wavelet transforms exist and are described and implemented by Press *et al.* [10].

The FFT: The FFT may also be applied. The great advantage of the FFT is that it allows the separation of magnitude and phase for modulation purposes.

In each of these transformations it is assumed that the block size is an integer power of two.

It is important to note the differences between the aims in image compression and in designing watermark transmission pulses. In image compression one is given a number (hopefully a small number) of coefficients with which to reproduce a good approximation to the original image. A small change in the coefficients should make little difference to the approximation to the image. However, the reverse does not necessarily hold since a small change to the image can result in a large change in the coefficients. This kind of behaviour is obviously extremely undesirable when the embedded information depends on the value of these coefficients. The severity of this effect depends on the image transforms being used. Ill-conditioning tends to be much more severe for image transformations whose basis images are data-dependent (e.g. the singular value decomposition or SVD). Image transformations with fixed basis images (e.g. DCT and wavelet transforms) tend to



Figure 3: *Lena strongly watermarked using blocks with borders.*



Figure 4: *Lena watermarked using fourth order Daubechey wavelets.*

3.3 OTHER ISSUES

The material in this paper thus far has described methods that may be used for placing a watermark in an image. However, we have not addressed other components in the watermarking problem, namely the reliable and secure transmission of the watermark.

Reliable communication was proven by Shannon [14] to be theoretically possible providing the information rate does not exceed a threshold known as the channel capacity. The Shannon limit may be approached by applying error control codes. Error control coding and modulation although often treated separately are in fact closely related. For example, in the implementation of the watermarking algorithm described above, the process of using only selected coefficients and ignoring others, is an example of a spherical code. In a spherical code [11] the points in signal space lie on the surface of a sphere whose radius is determined by the energy content. This code has mild error correcting properties with the result that low values of energy threshold result in significantly improved performance in the transmission of the mark. More robust error correction techniques can be employed if necessary. Methods for error control coding are described by Sweeney [15], Chambers [11] and Blahut [16].

In addition to reliability there may also be a need for security. Many different encryption algorithms exist to carry this out. A good introduction is presented by Chambers [11]. A more mathematical treatment of the subject is given by Konheim [17].

4 RESULTS

Figure 1 shows a standard image without a watermark. Figure 2 shows the same image watermarked using bi-directional coding and the blocks with borders method described above. The inner block size is 12 and the depth of modulation is 3. Figure 3 shows the same image strongly

The mark is for all intents and purposes invisible in figure 2 but may be detected quite readily even after lossy compression and scanning has been carried out. The watermark conveys 441 bits of information and the standard message reads: "012345 This is a watermark..."

Figure 4 shows "Lena" watermarked using the Daubechey Wavelet Transform. The block size is 8 and the depth of modulation is 5. The watermark conveys 12882 bits of information. The standard message is repeated to occupy all the available capacity. Note that the presence of the mark introduces no visible degradation.

The question arises as to what a watermark actually looks like. Figure 5 shows the difference between the wavelet marked version of the standard image and the original, scaled by a factor of 32. Figure 6 shows the image of a watermark produced using the DCT. As in the case of the wavelet watermark, the block size is 8 and the depth of modulation is 5. The number of bits encoded in the DCT watermark equals 9342 and the standard test message is repeatedly encoded as before.

The DCT watermarked image was compressed using JPEG with default settings. The quality factor was set to 90 and no smoothing was used. The compression ratio was 14:1. The binary bit pattern in the watermark was recovered with a bit error rate of 14%. Since the errors tended to occur in bursts it was actually possible to decipher ASCII characters from the raw bit stream without resorting to error-control codes. The same experiment was repeated using images marked using Daubechey wavelets and the Walsh-Hadamard transform. The corresponding bit error rates were 18.5% and 20.5% respectively.

It is apparent upon examining the watermarks in figure 5 and figure 6 that the transform based marking schemes possess a number of desirable features. First, one can mark according to the distribution of energy within the coefficients. In this way, one can place watermarks where

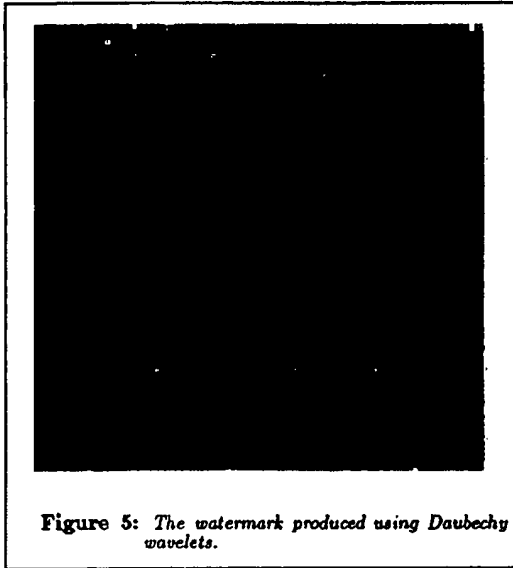


Figure 5: The watermark produced using Daubechji wavelets.

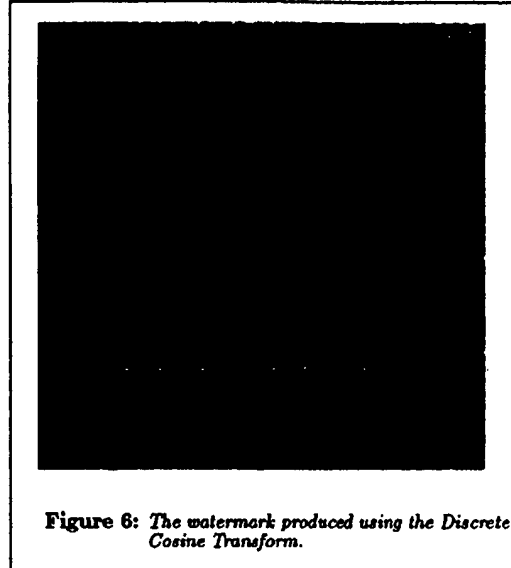


Figure 6: The watermark produced using the Discrete Cosine Transform.

As a result, the watermark exhibits a ghost-like resemblance to the original image. It is also very interesting to note that the watermark pattern on the flat regions of the image (such as Lena's shoulder) bears a superficial resemblance to military camouflage. Second the watermark is irregularly distributed over the entire image sub-block which makes it more difficult to detect and for enemies in possession of independent copies of the image to decode and read the mark.

5 CONCLUSION

This paper has outlined a scheme for embedding robust watermarks onto digital images. The watermarks are designed to be invisible even to a careful observer but contain sufficient information to uniquely identify both the origin and intended recipient of an image with a very low probability of error.

Future work will involve the further development of robust error correction codes and digital signature techniques. In addition, the authors will attempt to envisage possible attacks on the integrity and security of the mark and to devise suitable countermeasures.

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%k multiprocessors, MP, gang scheduling performance
 %x Shared-memory multiprocessors are frequently used in a time-sharing
 %x style with multiple parallel applications executing at the same
 %x time. In such an environment, where the machine load is
 %x continuously varying, the question arises of how an application
 %x should maximize its performance while being fair to other users of
 %x the system. In this paper, we address this issue. We first show
 %x that if the number of runnable processes belonging to a parallel
 %x application significantly exceeds the effective number of physical
 %x processors executing it, its performance can be significantly
 %x degraded. We then propose a way of controlling the number of
 %x runnable processes associated with an application dynamically, to
 %x ensure good performance. The optimal number of runnable processes
 %x for each application is determined by a centralized server and
 %x applications dynamically suspend or resume processes in order to
 %x match that number. A preliminary implementation of the proposed
 %x scheme is now running on the Encore Multimax and we show how it
 %x helps improve the performance of several applications. In some
 %x cases the improvement is more than a factor of two. We also discuss
 %x implications of the proposed scheme for multiprocessor schedulers,
 %x and how the scheme should interface with parallel programming
 %x languages.

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 %k Barkley89
 %A R. E. Barkley
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 %y AT\&T Bell Laboratories, Holmdel, NJ
 %T A lazy buddy system bounded by two coalescing delays per class
 %C Proceedings of the 12th ACM Symposium on Operating System Principles
 %c Litchfield Park, AZ, 3--6 December 1989
 %J Operating Systems Review
 %V 23
 %N 5
 %D December 1989
 %P 167 176
 %k performance, dynamic memory management, DELAY-2
 %x The watermark-based lazy buddy system for dynamic memory management
 %x uses lazy coalescing rules controlled by watermark parameters to
 %x achieve low operational costs. The correctness of the
 %x watermark-based lazy buddy system is shown by defining a space of
 %x legal states called the lazy space and proving that the
 %x watermark-based lazy coalescing rules always keep the memory state

%x within that space. In this paper we describe a different lazy
 %x coalescing policy, called the DELAY-2 algorithm, that focuses
 %x directly on keeping the memory state within the lazy space. The
 %x resulting implementation is simpler, and experimental data shows it
 %x to be up to 12\% faster than the watermark-based buddy system and
 %x about 33\% faster than the standard buddy system. Inexpensive
 %x operations make the DELAY-2 algorithm attractive as a memory
 %x manager for an operating system.
 %x The watermark-based lazy buddy policy offers fine control over the
 %x coalescing policy of the buddy system. However, applications such
 %x as the UNIX System kernel memory manager do not need such fine
 %x control. For these applications, the DELAY-2 buddy system provides
 %x an efficient memory manager with low operational costs and low
 %x request blocking probability. In the DELAY-2 buddy system, the
 %x worst-case time for a free operation is bounded by two coalescing
 %x delays per class, and when all blocks are returned to the system,
 %x the system memory is coalesced back to its original state. This
 %x ensures that the memory space can be completely shared.

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%A Dan Duchamp

%Y Computer Science Department, Columbia University

%T Analysis of transaction management performance

%C Proceedings of the 12th ACM Symposium on Operating System Principles

%c Litchfield Park, AZ, 3--6 December 1989

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%V 23

%N 5

%D December 1989

%P 177 190

%k performance, dbms, database, Camelot, Mach, non-blocking commit protocols

%k logging, multicasting

%x There is currently much interest in incorporating transactions into

%x both operating systems and general-purpose programming languages.

%x This paper provides a detailed examination of the design and

%x performance of the transaction manager of the Camelot system.

%x Camelot is a transaction facility that provides a rich model of

%x transactions intended to support a wide variety of general-purpose

%x applications. The transaction manager's principal function is to

%x execute the protocols that ensure atomicity.

%x The conclusions of this study are: a simple optimization to

%x two-phase commit reduces logging activity of distributed

%x transactions; non-blocking commit is practical for some



Watermark detection

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CUSTOM WEB FILTERS

Date: Before May 08 1995 [Edit this Search]

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Research and development department of **Watermark**
www.watermark-innovation.com

- **PhotoWatermark Pro**

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- **PhotoMark**

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www.WekaSoft.com

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... is that these schemes can easily be defeated by users who destroy the watermarks. ... in this paper (for text documents), is that of a **copy detection** server [1, 11 ...
www-db.stanford.edu/pub/brin/1995/copy.ps - 0 B

2. **IEEE????????????**

... Digital watermarking embedding computer generated hologram by error diffusion methods ... Edge
eejhb.hit.ac.jp/sibren-prg/ieee.html - 8 KB

3. **The Slab Allocator: An Object-Caching Kernel Memory Allocator Jeff**

... of the system needs more pages; there are no arbitrary limits or watermarks. ... Leak **Detection** The timestamps provided by auditing make it easy to implement a ...
www.usenix.org/publications/library/proceedings/bos94/full_papers/bonwick.a - 52 KB

*I could not get this copy as my system does not have PS or if I see packet #1
 see packet #2*

4. DP: A library for building portable reliable distributed ...
... to the primary to replenish its set, until the primary, having passed a high-**watermark**, sends them ...
Upon **detection** of failure (seebelow), B starts executing. ...
www.usenix.org/publications/library/proceedings/neworl/full_papers/arnow.ps - 0 B
5. Army Builder
... do is obtain the MOST RECENT version of a good virus **detection** program and run ... Army Builder
outputs a light grey "**watermark**" in the background on the printout. ...
www.wolfair.com/iframe.php?context=army_builder&page=solutions_to_comm - 27 KB
6. z InProceedings %K Burrows89 %A Michael Burrows %A Mart{\i}\n ...
... the real authentication server and is thus open to %x **detection** by the ... P 167 176 %k performance,
dynamic memory management, DELAY-2 %x The **watermark**-based lazy ...
www.funet.fi/pub/OS/doc/bibliography/SOSP12.refdbms - 31 KB
7. The following is part 1 of a nice intro to CD technology written ...
... Once the person uses the correct key then the **watermark** will be removed from the image being
displayed. ... EDC/ECC = Error **Detection** Code and Error Correction Code ...
archive.cs.uu.nl/pub/MIDI/DOC/CD-ROM - 90 KB
8. Return-path: <LISTSERV@VM1.MCGILL.CA>; Received: from...
... Towards The Periphery == Jean Baudrillard~ As a **watermark** of unexpected ... it managed to escape
all radar **detection** to become ...
collection.collectionscanada.ca/100/201/300/cthery/backissues/log9406.txt - 64 KB
9. HIS LAST BOW by ARTHUR CONAN DOYLE [obi/Doyle/His.Last.Bow] This ...
... The note is written upon ordinary cream-laid paper without **watermark**. ... The same great powers which
I have turned to the **detection** of crime he has used for this ...
www.arts.cuhk.edu.hk/humftp/E-text/Doyle/lastbow.dyl - 101 KB
10. Newsgroups: comp.sources.unix From: ross@spam.adelaide.edu.au ...
... as these" write "are a consequence of tests of FunnelWeb's **detection** of various ... list items are */X/*
open-systems.ufl.edu/mirrors/ftp.isc.org/usenet/comp.sources.unix/volume26/ - 101 KB

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see attachment 3



watermark detection

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CUSTOM WEB FILTERS

Date: Before May 08 1995 [Edit this Search]

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WEB RESULTS by Google (Showing Results 11 - 14 of 14)

11. Transaction Management for

... it has read object x. The validation mechanism failed to detect this behavior
 ... 44. Maintaining the Write Timestamp Information Using a Write-**watermark**
 Instead of ...
 research.microsoft.com/~adya/pubs/tr.ps.gz - 0 B

12. WinSocketAPI

... error codes consistent with Microsoft C, you are advised to use the Windows
 Sockets error codes prefixed by "WSA" to ensure accurate error code
detection. ...
 www.ibiblio.org/winsock/winsock-1.1/winsockx.rtf - 0 B

13. FunnelWeb Hacker's Manual

... was accomplished by reworking the memory package to operate a **watermark** system ... 4.7 Analyser
 Recursion **detection**: Currently the FunnelWeb analyser flags, with an ...
 www.tug.org/tex-archive/web/funnelAC/hackman/h_manual.ps - 0 B

14. Aarhus University Computer Science Department

... example, Ungar & Jackson report that for one application, the **watermark** scheme reduced ... helps
 swallow the pig), but does not help the collector detect when they ...
 www.daimi.au.dk/~jacobse/Papers/Thesis/gchesis.ps - 0 B

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STIC Search Report

EIC 2100

STIC Database Tracking Number 129454

TO: Norman M Wright
Location: CPK2 4A37
Art Unit : 2134
Thursday, August 12, 2004

Case Serial Number: 09/527971

From: Terese Esterheld
Location: EIC 2100
PK2-4B30
Phone: 308-7795

Terese.esterheld@uspto.gov

Search Notes

Dear Examiner Wright,

Attached, please find the results of your search request for application 09527971. I have concentrated on finding information on Watermark detection and the priority date of May 8, 1995. Other requested aspects were also searched.

The best information was obtained using the date restriction in Hot Bot.

Items have been marked that may be of value to you. Please look over the complete package as other items may also be of use.

Please let me know if you need additional information on this search.

Thank you for coming to EIC 2100.

Terese Esterheld



| Set | Items | Description |
|---|-------|--|
| S1 | 745 | AU=(RHOADS, G? OR RHOADS G? OR ALATTAR, A? OR ALATTAR A? OR SHARMA, R? OR SHARMA R?) |
| S2 | 94 | S1 AND IC=H04L? |
| S3 | 55 | S1 AND IC=H04L-009? |
| File 347:JAPIO Nov 1976-2004/Apr(Updated 040802) | | |
| (c) 2004 JPO & JAPIO | | |
| File 348:EUROPEAN PATENTS 1978-2004/Aug W01 | | |
| (c) 2004 European Patent Office | | |
| File 349:PCT FULLTEXT 1979-2002/UB=20040805,UT=20040729 | | |
| (c) 2004 WIPO/Univentio | | |
| File 350:Derwent WPIX 1963-2004/UD,UM &UP=200451 | | |
| (c) 2004 Thomson Derwent | | |

3/5/1 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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01658729

**IMAGE MANAGEMENT SYSTEM AND METHODS USING DIGITAL WATERMARKS
SYSTEME DE GESTION D'IMAGE ET EMPLOI DE FILIGRANES NUMERIQUES**

PATENT ASSIGNEE:

Digimarc Corporation, (2160503), Suite 250, 19801 SW 72nd Avenue,
Tualatin, OR 97062, (US), (Applicant designated States: all)

INVENTOR:

LOFGREN, Neil, E., 163 Palos Verdes, White Salmon, WA 98672, (US)

RHOADS, Geoffrey, B., 2961 S.W. Turner Road, West Linn, OR 97068, (US)
PATENT (CC, No, Kind, Date):

WO 2003079606 030925

APPLICATION (CC, No, Date): EP 2003716542 030312; WO 2003US7776 030312

PRIORITY (CC, No, Date): US 100233 020313

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
HU; IE; IT; LI; LU; MC; NL

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: **H04L-009/00** ; G06K-009/62; **H04L-009/32** ;
H04B-001/66

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 031119 A1 International application. (Art. 158(1))

Application: 031119 A1 International application entering European
phase

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/2 (Item 2 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.

01574040

**DIGITALLY WATERMARKING CHECKS AND OTHER VALUE DOCUMENTS
CHEQUES A FILIGRANAGE NUMERIQUE ET AUTRES DOCUMENTS DE VALEUR**

PATENT ASSIGNEE:

Digimarc Corporation, (3385120), Suite 250, 19801 SW 72nd Avenue,
Tualatin, OR 97062, (US), (Applicant designated States: all)

INVENTOR:

CARR, J., Scott, 22655 S.W. Grahams Ferry Road, Tualatin, OR 97062, (US)

RHOADS, Geoffrey, B., 2961 S.W. Turner Road, West Linn, OR 97068, (US)

HIEN, William, C., III, 151 Indiantown Road, Glenmoore, PA 19343-1412,
(US)

MILLER, Marc, D., P.O. Box 596, Corte Madera, CA 94976, (US)

HAWES, Jonathan, L., 2502 Jolie Point Road, West Linn, OR 97068, (US)

ELOVITZ, Andrea, Nicole, 5655 Southwood Drive, Lake Oswego, OR 97035,
(US)

STEWART, Steven, W., 4730 S.W. Joshua Street, Tualatin, OR 97062, (US)
PATENT (CC, No, Kind, Date):

WO 2003019449 030306

APPLICATION (CC, No, Date): EP 2002766213 020830; WO 2002US27954 020830

PRIORITY (CC, No, Date): US 316851 P 010831; US 327687 P 011005; US 352652
P 020128; US 172769 020614; US 172506 020614

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
IE; IT; LI; LU; MC; NL; PT

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-017/60; **H04L-009/00** ; G06K-009/00;
H04K-001/00

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 030502 A2 International application. (Art. 158(1))

Application: 030502 A2 International application entering European
phase

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/3 (Item 3 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS
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01530784

CONTENT IDENTIFIERS TRIGGERING CORRESPONDING RESPONSES
IDENTIFICATEURS DE CONTENU DECLENCHANT DES REPONSES CORRESPONDANTES
PATENT ASSIGNEE:

Digimarc Corporation, (2160505), 19801 SW 72nd Avenue, Suite 100,
Tualatin, Oregon 97062, (US), (Applicant designated States: all)

INVENTOR:

RHOADS, Geoffrey, B., 2961 SW Turner Road, West Linn, OR 97068, (US)

LEVY, Kenneth, L., 110 NE Cedar Street, Stevenson, WA 98648, (US)

PATENT (CC, No, Kind, Date):

WO 2002093823 021121

APPLICATION (CC, No, Date): EP 2002736807 020514; WO 2002US15187 020514

PRIORITY (CC, No, Date): US 858189 010514

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: **H04L-009/00** ; H04K-001/00

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 030115 A1 International application. (Art. 158(1))

Application: 030115 A1 International application entering European
phase

Application: 040616 A1 International application. (Art. 158(1))

Appl Changed: 040616 A1 International application not entering European
phase

Withdrawal: 040616 A1 Date application deemed withdrawn: 20031215

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/4 (Item 4 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01490287

DIGITAL WATERMARKING AND MAPS
FILIGRANAGE NUMERIQUE ET CARTES CONNEXES
PATENT ASSIGNEE:

Digimarc Corporation, (2160505), 19801 SW 72nd Avenue, Suite 100,
Tualatin, Oregon 97062, (US), (Applicant designated States: all)

INVENTOR:

RHOADS, Geoffrey, B., 2961 SW Turner Road, West Linn, OR 97068, (US)

BRUNDAGE, Trent, J., 16225 SW O'Neill Court, Tigard, OR 97223, (US)

LOFGREN, Neil, E., 163 Palos Verdes, White Salmon, WA 98672, (US)

PATTERSON, Philip, R., 25795 SW Meadowbrook Lane, Sherwood, OR 97140,
(US)

CLEMENTS, Lorie, R., 8007 SE 16th Avenue, Portland, OR 97202, (US)

PATENT (CC, No, Kind, Date):

WO 2002071685 020912

APPLICATION (CC, No, Date): EP 2002707961 020305; WO 2002US6858 020305

PRIORITY (CC, No, Date): US 800093 010305; US 833013 010410; US 284163 P

010416; US 284776 P 010418; US 858336 010515; US 2954 011023; US 997400
011128

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: **H04L-009/00** ; H04L-015/34

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 021106 A1 International application. (Art. 158(1))

Application: 021106 A1 International application entering European
phase

Application: 040414 A1 International application. (Art. 158(1))

Appl Changed: 040414 A1 International application not entering European
phase

Withdrawal: 040414 A1 Date application deemed withdrawn: 20031006

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/5 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01353388

DIGITAL WATERMARK SCREENING AND DETECTION STRATEGIES
RECHERCHE DE FILIGRANE NUMERIQUE ET STRATEGIES DE DETECTION
PATENT ASSIGNEE:

Digimarc Corporation, (2160504), 19801 SW 72nd Avenue, Suite 250,
Tualatin, Oregon 97062, (US), (Applicant designated States: all)

INVENTOR:

RHOADS, Geoffrey, B., 2961 SW Turner Road, West Linn, OR 97068, (US)
SHARMA, Ravi, K., 2557 NW Overlook Drive, Apartment 536, Hillsboro, OR
97124, (US)

PATENT (CC, No, Kind, Date):

WO 2001069518 010920

APPLICATION (CC, No, Date): EP 2001914752 010307; WO 2001US7373 010307

PRIORITY (CC, No, Date): US 526982 000315

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06K-009/00; G06K-009/36; **H04L-009/00** ;
H04N-007/16; H04N-011/00; H04N-009/64; H04K-001/00; G07D-007/00;
H03M-001/22

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 011114 A1 International application. (Art. 158(1))

Application: 011114 A1 International application entering European
phase

Application: 030507 A1 International application. (Art. 158(1))

Appl Changed: 030507 A1 International application not entering European
phase

Withdrawal: 030507 A1 Date application deemed withdrawn: 20021016

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/6 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01342224

WATERMARK ENCODER AND DECODER ENABLED SOFTWARE AND DEVICES
WASSERZEICHENCODIERER UND SOFTWARE UND EINRICHTUNGEN MIT
DECODIERERAKTIVIERUNG
LOGICIELS ET DISPOSITIFS ACTIVES PAR DES CODEURS ET DES DECODEURS DE
FILIGRANE

PATENT ASSIGNEE:

Digimarc Corporation, (2160503), Suite 250, 19801 SW 72nd Avenue,
Tualatin, OR 97062, (US), (Applicant designated States: all)

INVENTOR:

RAMOS, Daniel, O., 16869 SW Hargis Road, Beaverton, OR 97007, (US)

JONES, Kevin, C., 4850 NW Neskowin Ave., Portland, OR 97229, (US)

RHOADS, Geoffrey, B., 2961 SW Turner Road, West Linn, OR 97068, (US)

LEGAL REPRESENTATIVE:

Meddle, Alan Leonard (33762), Forrester & Boehmert Pettenkoferstrasse
20-22, 80336 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1257921 A1 021120 (Basic)

WO 2001061508 010823

APPLICATION (CC, No, Date): EP 2001909242 010214; WO 2001US4812 010214

PRIORITY (CC, No, Date): US 183681 P 000219; US 191778 P 000324; US 636102
000810

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06F-013/00; G06F-015/16; **H04L-009/00**

CITED PATENTS (WO A): US 5956716 A ; US 5841978 A

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 011017 A1 International application. (Art. 158(1))

Application: 011017 A1 International application entering European phase

Application: 021120 A1 Published application with search report

Examination: 021120 A1 Date of request for examination: 20020709

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/7 (Item 7 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01234195

METHODS AND SYSTEMS FOR CONTROLLING COMPUTERS OR LINKING TO INTERNET
RESOURCES FROM PHYSICAL AND ELECTRONIC OBJECTS

METHODEN UND SYSTEME ZUR RECHNERSTEUERUNG ODER VERBINDUNG VON PHYSISCHEN
ODER ELEKTRONISCHEN OBJEKTEN MIT INTERNET-RESSOURCEN

PROCEDES ET SYSTEMES DE CONTROLE D'ORDINATEURS OU DE LIAISON AUX RESSOURCES
INTERNET D'OBJETS PHYSIQUES ET ELECTRONIQUES

PATENT ASSIGNEE:

Digimarc Corporation, (2160503), Suite 250, 19801 SW 72nd Avenue,

Tualatin, OR 97062, (US), (Applicant designated States: all)

INVENTOR:

RHOADS, Geoffrey, B. , 304 SW Tualatin Loop, West Linn, OR 97068, (US)

RODRIGUEZ, Tony, F., 3104 NE 31st Avenue, Portland, OR 97212, (US)

DAVIS, Bruce, L., 15599 Village Drive, Lake Oswego, OR 97034, (US)

CARR, J., Scott, 7814 SW 189th Avenue, Beaverton, OR 97007, (US)

GROSSI, Brian, J., 220 Sleeper Avenue, Mountain View, CA 94040, (US)

MCKINLEY, Tyler, J., 17020 SW Tracy Avenue, Lake Oswego, OR 97035, (US)

SEDER, Phillip, A., 1600 Palatine Street, Portland, OR 97219, (US)

PERRY, Burt, W., 15344 Provincial Hill Way, Lake Oswego, OR 97035, (US)

HEIN, William, C., III, 151 Indiantown Road, Glenmoore, PA 19343-1412,
(US)

MACINTOSH, Brian, T., 1200 Fairway Road, Lake Oswego, OR 97034, (US)

LEGAL REPRESENTATIVE:

Meddle, Alan Leonard et al (33762), Forrester & Boehmert

Pettenkoferstrasse 20-22, 80336 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1185967 A1 020313 (Basic)

WO 200070585 001123

APPLICATION (CC, No, Date): EP 2000930749 000515; WO 2000US13333 000515

PRIORITY (CC, No, Date): US 314648 990519; US 342688 990629; US 342689

990629; US 342971 990629; US 343101 990629; US 343104 990629; US 141468

P 990629; US 151586 P 990830; US 158015 P 991006; US 163332 P 991103;

US 164619 P 991110; US 531076 000318; US 543125 000405; US 547664

000412; US 552998 000419

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G09C-005/00; G06F-017/00; G06K-007/00;

G06K-009/00; G06K-009/36; G06K-019/06; **H04L-009/00**

CITED PATENTS (WO A): US 5761686 A ; US 6052486 A ; US 5930767 A ; US

5841886 A ; US 5926550 A ; US 5862260 A ; US 5708717 A ; US 5168147 A ;

US 5278400 A

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010117 A1 International application. (Art. 158(1))

Application: 010117 A1 International application entering European phase

Application: 020313 A1 Published application with search report

Examination: 020313 A1 Date of request for examination: 20011017

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/8 (Item 8 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01181170

COUNTERFEIT DETERRENCE SYSTEM
VORRICHTUNG ZUR ABWEHR VON NACHAHMUNGEN
SYSTEME DE DISSUASION RELATIF AUX CONTREFACONS

PATENT ASSIGNEE:

Digimarc Corporation, (2160504), 19801 SW 72nd Avenue, Suite 250,
Tualatin, Oregon 97062, (US), (Applicant designated States: all)

INVENTOR:

RHOADS, Geoffrey, B., 304 SW Tualatin Loop, West Linn, OR 97068, (US)
DAVIS, Bruce, L., 15599 Village Drive, Lake Oswego, OR 97034, (US)
CARR, J., Scott, 7814 SW 189th Avenue, Beaverton, OR 97007, (US)

LEGAL REPRESENTATIVE:

Meddle, Alan Leonard et al (33761), FORRESTER & BOEHMERT,
Pettenkoferstrasse 20-22, 80336 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1142190 A1 011010 (Basic)
WO 200036785 000622

APPLICATION (CC, No, Date): EP 99967414 991216; WO 99US30217 991216

PRIORITY (CC, No, Date): US 112955 P 981218

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: **H04L-009/00** ; **H04L-009/32** ; C09D-011/00

CITED PATENTS (WO A): US 5825892 A ; US 5671277 A ; US 5453968 A ; US
5796824 A ; US 5800600 A

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 000816 A1 International application. (Art. 158(1))

Application: 000816 A1 International application entering European
phase

Application: 011010 A1 Published application with search report

Examination: 011010 A1 Date of request for examination: 20010607

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/9 (Item 9 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01130032

Method and apparatus for encoding audio with auxiliary digital data
Verfahren und Vorrichtung zur Kodierung von Audiosignalen mit zusatzlichen
digitalen Daten
Procede et dispositif de codage de signaux audio avec des signaux
auxiliaires

PATENT ASSIGNEE:

Digimarc Corporation, (2160503), Suite 500, One Centerpoint Drive, Lake
Oswego, Oregon 97035-8615, (US), (Applicant designated States: all)

INVENTOR:

Rhoads, Geoffrey B., 363 S.W. Tualatin Loop, West Linn, Oregon 97068,
(US)

LEGAL REPRESENTATIVE:

Meddle, Alan Leonard et al (33761), FORRESTER & BOEHMERT
Franz-Joseph-Strasse 38, 80801 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 987855 A2 000322 (Basic)

APPLICATION (CC, No, Date): EP 99124921 941116;

PRIORITY (CC, No, Date): US 154866 931118; US 215289 940317; US 327426
941021

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;
NL; PT; SE

EXTENDED DESIGNATED STATES: LT; SI

RELATED PARENT NUMBER(S) - PN (AN):

EP 737387 (EP 95909196)

ABSTRACT EP 987855 A2

A method of processing audio to convey auxiliary information therewith without audible evidence of audio alteration is provided, in which the audio is represented by digital data, and the auxiliary information comprises a data string having plural bit positions, each with a "1" or "0" value. The method comprises: receiving the plural bit auxiliary data; providing noise data; processing the plural bit auxiliary data and the noise data to yield intermediate data; and summing the intermediate data with the audio data to yield encoded audio; wherein the audio is repeatedly encoded from each of plural non-overlapping excerpts of the encoded audio.

ABSTRACT WORD COUNT: 102

NOTE:

Figure number on first page: 6

LEGAL STATUS (Type, Pub Date, Kind, Text):

Assignee: 000510 A2 Transfer of rights to new applicant: Digimarc Corporation (2160504) 19801 SW 72nd Avenue, Suite 250 Tualatin, Oregon 97062 US

Application: 20000322 A2 Published application without search report

Examination: 20000322 A2 Date of request for examination: 19991214

LANGUAGE (Publication,Procedural,Application): English; English; English

3/5/10 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01129425 **Image available**

SYSTEMS AND METHODS FOR AUTHENTICATION OF PRINT MEDIA

SYSTEMES ET PROCEDES D'IDENTIFICATION DE MEDIAS IMPRIMES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200451917 A1 20040617 (WO 0451917)

Application: WO 2003US37802 20031126 (PCT/WO US03037802)

Priority Application: US 2002430014 20021128; US 2003440593 20030115; US 2003466926 20030430; US 2003475389 20030602; US 2003523159 20031117

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **H04L-009/00**

International Patent Class: G06F-011/30

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 24460

English Abstract

This disclosure describes methods for using embedded auxiliary signals in documents for copy detection and other applications. In an application, the auxiliary signal is formed as an array of elements selected from a set of print structures (106) with properties that change differently in response to copy operations. These changes in properties of the print structures that carry the embedded auxiliary signal are automatically detectable. The extent to which the auxiliary data is detected forms a detection metric used in combination with one or more other metrics to differentiate copies from originals. Robust and fragile watermarks are used in Image Replacement Documents for a variety of applications. Digital watermarks act as on-board mediators in authentication of a variety of printed documents. Finally, digital watermarks are used to help manage quality of the scanners used in imaging systems.

French Abstract

L'invention concerne des procedes d'utilisation de signaux auxiliaires integres dans des documents pour la detection de copies et autres applications. Conformement a une application, le signal auxiliaire se presente sous la forme d'une rangee d'elements selectionnes a partir d'un ensemble de structures d'impression (106) dotees de proprietes qui varient en reponse aux operations de copies. Ces changements de proprietes des structures d'impression portant les signaux auxiliaires integres sont automatiquement detectables. La mesure pour laquelle les donnees auxiliaires sont detectees forme une metrique de detection utilisee en combinaison avec une ou plusieurs autres metriques en vue de differencier les copies de l'original. Des filigranes robustes et fragiles sont utilises dans des documents de remplacement d'images pour une variete d'applications. Des filigranes numeriques agissent comme mediateurs incorpores dans l'authentification d'une variete de documents imprimes. En dernier lieu, des filigranes numeriques sont utilises en vue de contribuer a la gestion de qualite des scanneurs utilises dans des systemes d'imagerie.

Legal Status (Type, Date, Text)

Publication 20040617 A1 With international search report.

3/5/11 (Item 2 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01049538 **Image available**

IMAGE MANAGEMENT SYSTEM AND METHODS USING DIGITAL WATERMARKS

SYSTEME DE GESTION D'IMAGE ET EMPLOI DE FILIGRANES NUMERIQUES

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Legal Representative:
CONWELL William Y (agent), Digimarc Corporation, Suite 250, 19801 S.W.
72nd Avenue, Tualatin, OR 97062, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200379606 A1 20030925 (WO 0379606)
Application: WO 2003US7776 20030312 (PCT/WO US0307776)
Priority Application: US 2002100233 20020313
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK
SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE
SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: **H04L-009/00**
International Patent Class: G06K-009/62; **H04L-009/32** ; H04B-001/66
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 7218

English Abstract

Digital watermarking technology is used as an image management system(30). Images are identified by digital watermarks (22a and 22b). The images are stored so as to be indexed according to their unique identifiers (22). In the preferred embodiment, related images are grouped into a set of images through a common watermark identifier (28). A particular image within the set of images is identified through a hash of the particular image (22).

French Abstract

Cette invention concerne l'emploi de la technologie du filigrane comme systeme de gestion d'images (30). Des images sont identifiees a l'aide de filigranes numeriques (22a et 22b). Les images sont stockees de maniere a etre indexees en fonction de leurs identifiants uniques (22). Dans un mode de realisation prefere, des images apparentees sont regroupees en un jeu d'images a l'aide d'un identifiant a filigrane commun (28). A l'interieur de l'ensemble d'images, on identifie une image particuliere (22) au moyen de son condense numerique propre (22).

Legal Status (Type, Date, Text)

Publication 20030925 A1 With international search report.

3/5/12 (Item 3 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
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00990398 **Image available**

DIGITALLY WATERMARKING CHECKS AND OTHER VALUE DOCUMENTS
CHEQUES A FILIGRANAGE NUMERIQUE ET AUTRES DOCUMENTS DE VALEUR

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200319449 A2-A3 20030306 (WO 0319449)
Application: WO 2002US27954 20020830 (PCT/WO US0227954)
Priority Application: US 2001316851 20010831; US 2001327687 20011005; US
2002352652 20020128; US 2002172769 20020614; US 2002172506 20020614

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-017/60

International Patent Class: H04L-009/00 ; G06K-009/00; H04K-001/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6711

English Abstract

A digital watermark (100) comprises of various techniques for encoding hidden information in checks and other security documents. The hidden information provides an authentication tool. Also including a method for encoding a security document with information. The security document comprises a substrate (102) having printing thereon. The information is hidden in the printing and corresponds to text or numbers conveyed by at least a portion of the printing. The method includes dividing the information into a plurality of payload sets, wherein each payload set includes a sub-set of the information, and encoding the payload sets across the substrate (102). The plurality of payload sets is concatenated in order to retrieve the information.

French Abstract

La presente invention concerne diverses techniques de codage d'informations cachees dans des cheques et dans d'autres documents de securite. Les informations cachees constituent un outil d'authentification. Un mode de realisation concerne un procede de codage d'un document de securite contenant des informations. Le document de securite comprend un substrat presentant une impression. Les informations sont cachees dans l'impression et correspondent au texte ou aux nombres vehicules par au moins une partie de l'impression. Ledit procede consiste a diviser les informations en une pluralite d'ensembles de donnees utiles, chaque ensemble de donnees utiles comprenant un sous-ensemble desdites informations, et a coder les ensembles de donnees utiles dans le substrat. La pluralite d'ensembles de donnees utiles est concatenee de maniere a retrouver les informations.

Legal Status (Type, Date, Text)
Publication 20030306 A2 Without international search report and to be
republished upon receipt of that report.
Search Rpt 20030530 Late publication of international search report
Republication 20030530 A3 With international search report.
Examination 20030828 Request for preliminary examination prior to end of
19th month from priority date

3/5/13 (Item 4 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
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00960338

CONTENT IDENTIFIERS TRIGGERING CORRESPONDING RESPONSES
IDENTIFICATEURS DE CONTENU DECLENCHANT DES REPONSES CORRESPONDANTES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200293823 A1 20021121 (WO 0293823)

Application: WO 2002US15187 20020514 (PCT/WO-US0215187)

Priority Application: US 2001858189 20010514

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT TZ UA UG US UZ VN YU ZA ZM

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **H04L-009/00**

International Patent Class: H04K-001/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2744

English Abstract

Fingerprint data derived from audio or other content is used as an
identifier, to trigger machine responses corresponding to the content.
The fingerprint can be derived from the content, and also separately
encoded in a file header. Digital watermarks can also be similarly used.

French Abstract

Des donnees concernant une empreinte digitale provenant d'un contenu
audio ou autre sont utilisees comme identificateurs pour declencher des
reponses machine correspondant au contenu. L'empreinte digitale peut
provenir du contenu et etre chiffree separement dans un en-tete de
fichier. Des filigranes numeriques peuvent etre utilises de facon
similaire.

Legal Status (Type, Date, Text)

Publication 20021121 A1 With international search report.
Examination 20030501 Request for preliminary examination prior to end of
19th month from priority date

3/5/14 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00937509 **Image available**

DIGITAL WATERMARKING AND MAPS

FILIGRANAGE NUMERIQUE ET CARTES CONNEXES

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200271685 A1 20020912 (WO 0271685)
Application: WO 2002US6858 20020305 (PCT/WO US0206858)
Priority Application: US 2001800093 20010305; US 2001833013 20010410; US
2001284163 20010416; US 2001284776 20010418; US 2001858336 20010515; US
20012954 20011023; US 2001997400 20011128

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **H04L-009/00**

International Patent Class: H04L-015/34

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 23726

English Abstract

Digital watermarking technology herein, is described in a four step
process, of (figure 4, S1-S4), and is used in conjunction with map dat,
such as is acquired by satellite and other sensors and may be generated
from image and ground truth databases (extract watermark location
information) (figure 4, element S1). The second step, S2, determines a
physical location (e.g., GPS). The third step of (figure 4, element S3),
compares the location information with the physical location. The fourth
step of (figure 4, S4), provides feedback of the comparison.

French Abstract

L'invention se rapporte a la technologie de filigranage numerique comprenant quatre etapes (figure 4, S1-S4) et utilisee avec des donnees de carte, notamment celles acquises par satellite et d'autres capteurs susceptibles d'etre generees a partir de bases de donnees d'images et de sites temoins (extraction d'informations relatives a un emplacement de filigrane) (figure 4, element S1). La deuxieme etape, S2, determine un emplacement physique (p. ex. GPS). Quant a la troisieme etape (figure 4, element S3), elle compare les informations relatives a l'emplacement et l'emplacement physique. Finalement, la quatrieme etape (figure 4, S4) assure la retroaction de la comparaison.

Legal Status (Type, Date, Text)

Publication 20020912 A1 With international search report.

Publication 20020912 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20030206 Request for preliminary examination prior to end of 19th month from priority date

3/5/15 (Item 6 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00908018

ACCESS CONTROL SYSTEMS AND METHODS

SYSTEMES ET PROCEDES DE COMMANDE D'ACCES

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200241560 A2-A3 20020523 (WO 0241560)

Application: WO 2001US50071 20011024 (PCT/WO US0150071)

Priority Application: US 2000697015 20001025

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK
SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: H04L-009/32

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2927

English Abstract

An access control system, for buildings, networks, and equipment or the like, that is responsive to photographic badges or other tokens of identification. A visitor or user of the disclosed system can make their own badge in advance, at a location remote from the facility, network or

equipment. The badge can include a photograph of the visitor (e.g., obtained from an image database maintained by a state or federal agency, such as a state department of motor vehicles, or another trusted source), and can also include a machine-readable access code. This code, provided to the visitor or user in advance of the visit or use, can define certain privileges that the visitor or user is authorized to enjoy at the building, etc., including unescorted access to certain areas, access to certain computer resources, permission to operate equipment, etc.

French Abstract

Cette invention concerne un systeme de commande d'accès a des batiments, reseaux, equipements et autres, qui reagit a des badges photographiques et autres marques d'identification. Tout visiteur ou utilisateur du systeme selon l'invention peut creer son propre badge a distance, en un point eloigne du batiment, du reseau ou de l'equipement. Le badge peut comporter une photographie du visiteur (tiree par exemple de la base de donnees image d'un organisme d'etat ou federal tel qu'un service des vehicules a moteur ou autre source securisee) avec eventuellement un code d'accès lisible par machine. Ce code, qui est fourni au visiteur ou a l'utilisateur avant la visite ou l'utilisation effectives, peut donner droit a certains privileges dans le batiment, etc., dont l'accès sans escorte a certaines zones ou a certaines ressources informatiques, l'autorisation d'utiliser du materiel, etc.

Legal Status (Type, Date, Text)

Publication 20020523 A2 Without international search report and to be republished upon receipt of that report.
Search Rpt 20030130 Late publication of international search report
Replication 20030130 A3 With international search report.
Examination 20030424 Request for preliminary examination prior to end of 19th month from priority date

3/5/16 (Item 7 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00866335 **Image available**

INTERACTIVE VIDEO AND WATERMARK ENABLED VIDEO OBJECTS

VIDEO INTERACTIVE ET OBJETS VIDEO ACTIVES PAR FILIGRANE

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200199325 A2-A3 20011227 (WO 0199325)

Application: WO 2001US19254 20010615 (PCT/WO US0119254)

Priority Application: US 2000597209 20000620; US 2000660756 20000913

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: G06K-009/00
International Patent Class: H04K-001/00; H04N-007/00; H04N-007/167;
H04L-009/00 ; H04J-003/12
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 16997

English Abstract

Watermark in video signals or the accompanying audio track are used to associate video objects in a video sequence with object specific actions or information (604). A video object refers to a spatial and temporal portion of a video signal that depicts a recognizable object, such as a character, prop, graphic, etc. Each frame of a video signal may have one or more video objects (604). The auxiliary information is embedded in video or audio signals using "steganographic" methods, such as digital watermarks (612). By encoding object specific information into video or an accompanying audio track, the watermarks transform video objects into "watermark enabled" video objects that provide information, actions links to additional information or actions during playback of a video or audio-visual program. A similar concept may be applied to audio objects, i.e. portions of audio that are attributable to a particular speaker, character, instrument, artist, etc.

French Abstract

L'invention concerne des filigranes dans des signaux video ou la piste audio associee, qui sont utilises pour associer des objets video dans une sequence video a des actions ou des informations specifiques a l'objet. Un objet video fait reference a la partie spatiale et temporelle d'un signal video qui represente un objet reconnaissable, tel qu'un caractere, un accessoire, un symbole graphique, etc. Chaque trame d'un signal video peut comporter un ou plusieurs objets video. Les informations auxiliaires sont integrees a des signaux video ou audio au moyen de procedes <= steganographiques >=, tels que les filigranes numeriques. Le codage d'informations specifiques a l'objet dans des signaux video ou une piste audio associee entraine la transformation par les filigranes d'objets video en objets video <= actives par filigrane >= qui fournissent des informations, des actions ou des liens a des informations ou actions additionnelles lors de la lecture d'un programme video ou audio-visuel. Un concept analogue peut etre applique a des objets audio, c'est-a-dire a des parties de donnees audio imputables a un orateur, un caractere, un instrument ou un artiste particulier, etc. Un dispositif personnel (DP) de programmation video interactive permet a des telespectateurs de connaitre un contenu interactif associe a la programmation sur un ecran personnel tout en regardant la programmation affichee sur un ecran partage. Le dispositif peut etre utilise conjointement a differents schemas video interactifs, dont par exemple, la video activee par filigrane.

Legal Status (Type, Date, Text)

Publication 20011227 A2 Without international search report and to be republished upon receipt of that report.
Examination 20020627 Request for preliminary examination prior to end of 19th month from priority date
Search Rpt 20031106 Late publication of international search report
Republication 20031106 A3 With international search report.

3/5/17 (Item 8 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
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00835857 **Image available**

DIGITAL WATERMARK SCREENING AND DETECTION STRATEGIES
RECHERCHE DE FILIGRANE NUMERIQUE ET STRATEGIES DE DETECTION

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

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SHARMA Ravi K , 2557 NW Overlook Drive, Apartment 536, Hillsboro, OR
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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200169518 A1 20010920 (WO 0169518)

Application: WO 2001US7373 20010307 (PCT/WO US0107373)

Priority Application: US 2000526982 20000315

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ
TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06K-009/00

International Patent Class: G06K-009/36; **H04L-009/00** ; H04N-007/16;
H04N-011/00; H04N-009/64; H04K-001/00; G07D-007/00; H03M-001/22

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5452

English Abstract

To enhance decoding of signals suspected of containing a watermark (200),
a suspect signal is screened to compute detection values (204) evincing
presence and strength of a watermark. Screening strategies control
detector actions, such as rejecting unmarked signals (208) and improving
synchronization of watermarks in suspect signals.

French Abstract

Pour ameliorer le decodage de signaux supposes contenir un filigrane
(200) un signal suspecte est filtre pour calculer des valeurs (204) de
detection indiquant clairement la presence et l'intensite d'un filigrane.
Des strategies de filtrage commandent des actions du detecteur telles que
le rejet des signaux (208) sans filigrane et l'amelioration de la
synchronisation des filigranes dans des signaux suspects.

Legal Status (Type, Date, Text)

Publication 20010920 A1 With international search report.

Examination 20020516 Request for preliminary examination prior to end of
19th month from priority date

3/5/18 (Item 9 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00827978 **Image available**

WATERMARK ENCODER AND DECODER ENABLED SOFTWARE AND DEVICES
LOGICIELS ET DISPOSITIFS ACTIVES PAR DES CODEURS ET DES DECODEURS DE

FILIGRANE

Patent Applicant/Assignee:

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200161508 A1 20010823 (WO 0161508)

Application: WO 2001US4812 20010214 (PCT/WO US0104812)

Priority Application: US 2000183681 20000217; US 2000191778 20000324; US
2000636102 20000810

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-013/00

International Patent Class: G06F-015/16; **H04L-009/00**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 17935

English Abstract

Watermark encoders and decoders are integrated into operating systems, Internet browsers (300), media players, and other applications and devices. Such integration enables the watermark-enabled application (304) or device to provide additional functionality and information (302) available via the watermark. The watermark, for example, may link to metadata or actions related to a media object. To exploit this watermark enabled functionality, the integrated application uses a watermark decoder to access the related metadata and actions. The user interface of the integrated application is enhanced to present metadata and actions linked via the watermark. Similarly, watermark encoders may be integrated into applications to convert media objects into enhanced, watermarked objects.

French Abstract

Les codeurs et decodeurs de filigranes sont integres dans des systemes d'exploitation, des explorateurs Internet (300), des diffuseurs de medias et autres applications et dispositifs. Une telle integration permet a l'application (304) ou au dispositif actives par filigrane d'offrir des fonctionnalites et des informations (302) supplementaires disponibles via le filigrane. Ce filigrane peut notamment constituer un lien vers des metadonnees ou des actions liees a un objet media. Afin d'exploiter cette fonctionnalite activee par filigrane, l'application integree utilise un decodeur de filigrane afin d'accéder auxdites metadonnees et actions liees. L'interface utilisateur de l'application integree est amelioree pour presenter des metadonnees et des actions liees via le filigrane. D'une facon similaire, des codeurs de filigranes peuvent etre integres a des applications afin de transformer des objets media en objets

filigranes ameliores.

Legal Status (Type, Date, Text)

Publication 20010823 A1 With international search report.

Publication 20010823 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20011220 Request for preliminary examination prior to end of 19th month from priority date

Correction 20021031 Corrected version of Pamphlet: pages 1/13-13/13, drawings, replaced by new pages 1/13-13/13; due to late transmittal by the receiving Office

Republication 20021031 A1 With international search report.

3/5/19 (Item 10 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00757193 **Image available**

METHODS AND SYSTEMS FOR CONTROLLING COMPUTERS OR LINKING TO INTERNET RESOURCES FROM PHYSICAL AND ELECTRONIC OBJECTS

PROCEDES ET SYSTEMES DE CONTROLE D'ORDINATEURS OU DE LIAISON AUX RESSOURCES INTERNET D'OBJETS PHYSIQUES ET ELECTRONIQUES

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200070585 A1 20001123 (WO 0070585)

Application: WO 2000US13333 20000515 (PCT/WO US0013333)

Priority Application: US 99314648 19990519; US 99342688 19990629; US 99342689 19990629; US 99342971 19990629; US 99343101 19990629; US 99343104 19990629; US 99141468 19990629; US 99151586 19990830; US 99158015 19991006; US 99163332 19991103; US 99164619 19991110; US 2000531076 20000318; US 2000543125 20000405; US 2000547664 20000412; US 2000552998 20000419

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN

YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G09C-005/00

International Patent Class: G06F-017/00; G06K-007/00; G06K-009/00;

G06K-009/36; G06K-019/06; **H04L-009/00**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 54735

English Abstract

Physical or electronic objects are encoded with identifiers, which serve to trigger object-appropriate responses from computer systems that encounter such objects. The encoding may be steganographic (e.g., by digital watermarks), so the presence of such identifiers is not evident to persons encountering the objects. An exemplary application is a computer system that looks at a printed magazine advertisement (20) and initiates a link to a corresponding internet page. In one such implementation, the computer system senses an identifier encoded in the advertisement, forwards the identifier to a remote database, receives from the database (17) a corresponding internet address (18a, 18b, 18c), and directs a browser to that address (18a, 18b, 18c). The same arrangement can be used for on-line ordering from printed merchandise catalogs. Another application is a computer system that looks at a printed spreadsheet (20), and retrieves from disk storage an electronic version of the same document for editing.

French Abstract

Des objets physiques ou electroniques sont codes avec des identifiants, qui servent a declencher des reactions appropriees aux objets a partir de systemes informatiques qui retrouvent ces objets. Le codage peut etre effectuee en steganographie (par exemple, en filigrane numerique), de sorte que la presence desdits identifiants ne soient pas evidents aux personnes rencontrant de tels objets. Une utilisation a titre d'exemple serait un systeme informatique qui regarde une annonce-magazine imprimee (20) et declenche une liaison vers une page correspondante sur l'Internet. Dans une telle mise en oeuvre, le systeme informatique capte un identifiant code dans l'annonce publicitaire, achemine l'identifiant vers une base de donnees distante, recoit a partir de la base de donnees (17) une adresse Internet correspondante (18a, 18b, 18c), et dirige un navigateur de reseau vers ladite adresse (18a, 18b, 18c). Un arrangement identique peut etre utilise pour la commande en ligne a partir d'imprimés catalogues d'articles. Une autre application serait un systeme informatique qui regarde un tableur imprime (20), et preleve de la memoire a disques magnetiques une version electronique de ce meme document pour l'edition.

Legal Status (Type, Date, Text)

Publication 20001123 A1 With international search report.

Publication 20001123 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20010816 Request for preliminary examination prior to end of 19th month from priority date

3/5/20 (Item 11 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00573412

COUNTERFEIT DETERRENCE SYSTEM

SYSTEME DE DISSUASION RELATIF AUX CONTREFACONS

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CARR J Scott,

Inventor(s):

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200036785 A1 20000622 (WO 0036785)
Application: WO 99US30217 19991216 (PCT/WO US9930217)
Priority Application: US 98112955 19981218

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE
GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK
MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN
YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA
GN GW ML MR NE SN TD TG

Main International Patent Class: H04L-009/00

International Patent Class: H04L-009/32 ; C09D-011/00

Publication Language: English

Fulltext Availability:

Detailed Description
Claims

Fulltext Word Count: 4404

English Abstract

Processing of banknote- or other security document-images in a computer system is sensed, and serves to launch (or direct) a web browser to a web site that educates the user about limitations on use of such imagery, and/or provides substitute imagery that may be utilized for legitimate purposes. Such images may be recognized by a digital watermark encoded therein or by other known techniques. The technology is applicable to a wide class of documents that should not be duplicated, including passports, visas, postal stamps, stock certificates, travelers checks, concert/event tickets, lottery tickets, etc. The technology may also be used for non-security applications, e.g., recognizing images, video, or audio being processed on a user's computer as belonging to a certain class, and presenting the user with a web page relating to that class of object. Commerce opportunities may thereby be made available to the user.

French Abstract

Le traitement d'images de billets de banque ou d'autres documents de securite dans un systeme informatique est detecte et sert a lancer (ou diriger) un explorateur Web vers un site Web qui instruit l'utilisateur quant aux limitations portant sur l'utilisation de telles images, et/ou propose des images de substitution qui peuvent etre utilisees a des fins legitimes. De telles images peuvent etre reconnues par un filigrane numerique code dans ces images ou par d'autres techniques connues. Cette technologie est applicable a une grande diversite de documents qui ne doivent pas etre dupliques, y compris les passeports, les visas, les timbres postaux, les certificats d'actions, les cheques de voyage, les tickets de concert/evenement, les tickets de loterie et autres. Cette technologie peut egalement etre utilisee pour des applications dans un cadre non securitaire, telles que la reconnaissance d'images, dans ce cas, des signaux video ou audio sont traites sur un ordinateur d'utilisateur comme appartenant a une certaine classe, et l'utilisateur se voit presenter une page Web relative a cette classe d'objet. Des offres commerciales peuvent ainsi etre proposees a l'utilisateur.

3/5/21 (Item 1 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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016329864 **Image available**
WPI Acc No: 2004-487761/200446
XRPX Acc No: N04-384821

Printed object e.g. security document image analyzing method, involves
determining whether machine readable auxiliary signal is embedded in
image using print structure that changes in response to copy operation

Patent Assignee: DIGIMARC CORP (DIGI-N)

Inventor: ALATTAR O M; BRUNK H L; HANNIGAN B T; LEVY K L; REED A M;

RODRIGUEZ T F; SHARMA R K

Number of Countries: 101 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|--------------|------|----------|----------------|------|----------|----------|
| WO 200451917 | A1 | 20040617 | WO 2003US37802 | A | 20031126 | 200446 B |

Priority Applications (No Type Date): US 2003523159 P 20031117; US
2002430014 P 20021128; US 2003440593 P 20030115; US 2003466926 P 20030430
; US 2003475389 P 20030602

Patent Details:

Patent No Kind Lan Pg ~ Main IPC ~ Filing Notes

WO 200451917 A1 E 93 H04L-009/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA
ZM ZW

Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR
GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR
TZ UG ZM ZW

Abstract (Basic): WO 200451917 A1

NOVELTY - The method involves determining whether a machine
readable auxiliary signal is embedded at embedding locations in an
image using a print structure that changes in response to a copy
operation. The change causes a divergence or convergence of a
characteristic of the structure such that the signal becomes more or
less detectable. The signal is evaluated to determine whether a printed
object is a copy or an original.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
following:

(a) a storage medium with instructions for performing a printed
object image analyzing method

(b) a method for creating an image to be printed on a printed
object

(c) a storage medium has stored information for performing a method
of creating an image to be printed on a printed object

(d) a printed object.

USE - Used for analyzing an image of a printed object e.g. security
document, identity document, banknote, check and package.

ADVANTAGE - The machine readable auxiliary signal embedded at
embedding locations in the image is determined using print structure,
thereby providing more effective discrimination metrics between
originals and counterfeits.

DESCRIPTION OF DRAWING(S) - The drawing shows a process for
generating an auxiliary data signal for printing on print media for
authentication.

pp; 93 DwgNo 1/36

Title Terms: PRINT; OBJECT; SECURE; DOCUMENT; IMAGE; METHOD; DETERMINE;
MACHINE; READ; AUXILIARY; SIGNAL; EMBED; IMAGE; PRINT; STRUCTURE; CHANGE;
RESPOND; COPY; OPERATE

Derwent Class: S06; T01; T04; T05

International Patent Class (Main): H04L-009/00

International Patent Class (Additional): G06F-011/30

File Segment: EPI

3/5/22 (Item 2 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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016109919 **Image available**
WPI Acc No: 2004-267795/200425
Related WPI Acc No: 2004-069726
XRPX Acc No: N04-211751

Identification document creating method for drivers license, involves
embedding digital watermark signal where signal carries variable message
payload with information related to other information on identification
document

Patent Assignee: ALATTAR A M (ALAT-I); BARR J K (BARR-I); BRADLEY B A
(BRAD-I); DURST R (DURS-I); HANNIGAN B T (HANN-I)

Inventor: ALATTAR A M ; BARR J K; BRADLEY B A; DURST R; HANNIGAN B T

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20040039914 | A1 | 20040226 | US 2002158385 | A | 20020529 | 200425 B |
| | | | US 2003449827 | A | 20030529 | |

Priority Applications (No Type Date): US 2003449827 A 20030529; US
2002158385 A 20020529

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|-------------|--------------------|---------------|
| US 20040039914 | A1 | 16 | H04L-009/00 | CIP of application | US 2002158385 |

Abstract (Basic): US 20040039914 A1

NOVELTY - The method involves identifying a feature location in a
biometric image. A digital watermark signal is generated. The digital
watermark signal is embedded in the biometric image such that the
digital watermark location is dependent on the feature of location. The
digital watermark signal carries a variable message payload (104) with
information related to other information on an identification document.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
following:

(a) a tangible medium with instructions for performing a method for
creating Identification document

(b) a method of performing biometric analysis

(c) a method of authenticating an identification document.

USE - Used for creating an identification document in drivers
license, access control card, voter registration card, travel document
and badge.

ADVANTAGE - The information provided in digital watermark code
provides information that increases speed of search and accuracy of
search. The method enables accurate template extraction and comparison.

DESCRIPTION OF DRAWING(S) - The drawing shows a diagram depicting a
digital watermark embedder used to create watermarked objects that are
authenticated in multiple ways.

Hash function (103)

Payload message (104)

Basic pattern (106)

Digital watermark embedding operations (109, 110)

Distortion channel (114)

pp; 16 DwgNo 1/4

Title Terms: IDENTIFY; DOCUMENT; METHOD; DRIVE; LICENCE; EMBED; DIGITAL;
WATERMARK; SIGNAL; SIGNAL; CARRY; VARIABLE; MESSAGE; PAYLOAD; INFORMATION
; RELATED; INFORMATION; IDENTIFY; DOCUMENT

Derwent Class: S05; T01

International Patent Class (Main): H04L-009/00

International Patent Class (Additional): H04L-009/32

File Segment: EPI

3/5/23 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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015911886 **Image available**
WPI Acc No: 2004-069726/200407
Related WPI Acc No: 2004-267795
XRPX Acc No: N04-056080

Authentication media object creation method e.g. for document, involves embedding content dependent pattern obtained by combining content signature and pattern generated from object hash information, into object
Patent Assignee: DIGIMARC CORP (DIGI-N); BARR J K (BARR-I); BRADLEY B A (BRAD-I); HANNIGAN B T (HANN-I)

Inventor: **ALATTAR A M** ; BARR J K; BRADLEY B A; DURST R; HANNIGAN B T
Number of Countries: 100 Number of Patents: 003
Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| US 20030223584 | A1 | 20031204 | US 2002158385 | A | 20020529 | 200407 B |
| WO 2003103211 | A2 | 20031211 | WO 2003US17048 | A | 20030529 | 200407 |
| AU 2003273528 | A1 | 20031219 | AU 2003273528 | A | 20030529 | 200449 |

Priority Applications (No Type Date): US 2002158385 A 20020529

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|----------------|----|--|---|-------------|--|
| US 20030223584 | A1 | | 8 | H04L-009/00 | |
|----------------|----|--|---|-------------|--|

| | | | | | |
|---------------|----|---|--|-------------|--|
| WO 2003103211 | A2 | E | | H04L-000/00 | |
|---------------|----|---|--|-------------|--|

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

| | | | | | |
|---------------|----|--|--|-------------|-------------------------------|
| AU 2003273528 | A1 | | | H04L-009/00 | Based on patent WO 2003103211 |
|---------------|----|--|--|-------------|-------------------------------|

Abstract (Basic): US 20030223584 A1

NOVELTY - A pattern is generated from the computed hash information on the media object such as document, software for authentication. The content signature computed from a media signal in the media object, is combined with the generated pattern to form a content dependent pattern that is embedded as a digital watermark into the media object.

USE - For creating media objects such as document, software, multi-dimensional graphics models, surface textures of objects, images, video, audio, for authentication using digital water marking embedder.

ADVANTAGE - By using the simple and reliable method, computed content dependent pattern is embedded as digital watermark onto media object, thereby authentication of object is enabled effectively and securely.

DESCRIPTION OF DRAWING(S) - The figure shows the flow diagram explaining the authentication media object creation process.

pp; 8 DwgNo 2/2

Title Terms: AUTHENTICITY; MEDIUM; OBJECT; CREATION; METHOD; DOCUMENT; EMBED; CONTENT; DEPEND; PATTERN; OBTAIN; COMBINATION; CONTENT; SIGNATURE; PATTERN; GENERATE; OBJECT; HASH; INFORMATION; OBJECT

Derwent Class: T01; T03; W04

International Patent Class (Main): H04L-000/00; H04L-009/00

File Segment: EPI

3/5/24 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015769587 **Image available**
WPI Acc No: 2003-831789/200377
XRPX Acc No: N03-664744

Data transaction method for credit card, involves sending parameters to

**integrated small computer system interface machine for allowing client
system to transact data over secure connection**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: ALLEN J P; CONKLIN W C; JAIN V; MULLEN S P; **SHARMA R** ; SHARMA S
P

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030191932 | A1 | 20031009 | US 2002116523 | A | 20020404 | 200377 B |

Priority Applications (No Type Date): US 2002116523 A 20020404

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|----------------|------|--------|-------------|--------------|
| US 20030191932 | A1 | 11 | H04L-009/00 | |

Abstract (Basic): US 20030191932 A1

NOVELTY - A request for secure connection to transact data received from a client system, is forwarded to a computer system for negotiating parameters such as encryption/decryption key for secure connection. The parameters are sent to small computer system interface (SCSI) machine for allowing the client system to transact data over secure connection.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) computer program product for data transaction method;
- (2) data transaction apparatus; and
- (3) computer system.

USE - For data transaction used in computer system (claimed) of credit card company and financial institutions.

ADVANTAGE - Provides security to small computer system interface (SCSI) data transaction by sending parameter to SCSI system after computer system has negotiated the parameters.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart illustrating data transaction method.

pp; 11 DwgNo 6/6

Title Terms: DATA; TRANSACTION; METHOD; CREDIT; CARD; SEND; PARAMETER;
INTEGRATE; COMPUTER; SYSTEM; INTERFACE; MACHINE; ALLOW; CLIENT; SYSTEM;
DATA; SECURE; CONNECT

Derwent Class: T01

International Patent Class (Main): **H04L-009/00**

File Segment: EPI

3/5/25 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015738760 **Image available**

WPI Acc No: 2003-800961/200375

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-490584; 2000-647035;
2001-022904; 2001-335855; 2001-357503; 2001-374044; 2001-397673;
2001-425330; 2001-570080; 2001-580828; 2001-581298; 2001-581665;
2001-595705; 2001-607222; 2002-011177; 2002-041658; 2002-062159;
2002-082807; 2002-154357; 2002-163652; 2002-163681; 2002-179003;
2002-188040; 2002-205513; 2002-224088; 2002-226224; 2002-235400;
2002-236852; 2002-238406; 2002-238913; 2002-239839; 2002-254659;
2002-256143; 2002-268672; 2002-315095; 2002-361599; 2002-361694;
2002-370756; 2002-382444; 2002-391512; 2002-392708; 2002-394013;
2002-403568; 2002-405083; 2002-413035; 2002-435593; 2002-470507;
2002-479804; 2002-498079; 2002-498923; 2002-507125; 2002-508021;
2002-528580; 2002-556177; 2002-598690; 2002-598923; 2002-617280;
2002-636862; 2002-642228; 2002-654787; 2002-672857; 2002-673567;
2002-691185; 2002-697772; 2002-698265; 2003-045908; 2003-057552;
2003-074123; 2003-090293; 2003-091652; 2003-137905; 2003-140183;
2003-174573; 2003-199024; 2003-219596; 2003-238411; 2003-266622;
2003-268467; 2003-275465; 2003-327510; 2003-331365; 2003-353776;

2003-362315; 2003-391983; 2003-392393; 2003-401297; 2003-418353;
2003-418436; 2003-419661; 2003-419904; 2003-465734; 2003-492022;
2003-557490; 2003-587433; 2003-597620; 2003-615418; 2003-615425;
2003-655604; 2003-655616; 2003-655715; 2003-656012; 2003-658647;
2003-659691; 2003-687554; 2003-707329; 2003-730410; 2003-767701;
2003-777048; 2003-800216; 2003-802603; 2003-829683; 2003-897231;
2004-031964; 2004-059015; 2004-059948; 2004-070353; 2004-098221;
2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;
2004-386915

XRFX Acc No: N03-641855

Media content management method using Internet, involves finding related metadata on receiving request along with watermark information and sending related metadata to reader device

Patent Assignee: AGGSON C K (AGGS-I); HIATT R S (HIAT-I); JONES K C (JONE-I); LEVY K L (LEVY-I); MOSHER B (MOSH-I); RHOADS G B (RHOA-I); RODRIGUEZ T F (RODR-I)

Inventor: AGGSON C K; HIATT R S; JONES K C; LEVY K L; MOSHER B; **RHOADS G B**; RODRIGUEZ T F

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20020188841 | A1 | 20021212 | US 95508083 | A | 19950727 | 200375 B |
| | | | US 96649419 | A | 19960516 | |
| | | | US 96746613 | A | 19961112 | |
| | | | US 2000612177 | A | 20000706 | |
| | | | US 2001282205 | P | 20010406 | |
| | | | US 2002118468 | A | 20020405 | |

Priority Applications (No Type Date): US 2001282205 P 20010406; US 95508083 A 19950727; US 96649419 A 19960516; US 96746613 A 19961112; US 2000612177 A 20000706; US 2002118468 A 20020405

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|----|-------------|---|
| US 20020188841 | A1 | | 12 | H04L-009/00 | CIP of application US 95508083 CIP of application US 96649419 Cont of application US 96746613 CIP of application US 2000612177 Provisional application US 2001282205 CIP of patent US 5841978 CIP of patent US 5862260 Cont of patent US 6122403 |

Abstract (Basic): US 20020188841 A1

NOVELTY - A reader device reads a watermark embedded in a media content and forwards the watermark information to a router, to find a metadata database. A metadata database identifier finds a related metadata for the media content using the watermark information and sends the related metadata to the reader device.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) media package;
- (2) content searching system;
- (3) metadata formatting method; and
- (4) a method of controlling unauthorized distribution of content media.

USE - For asset management of media content such as still image, audio, video information, software, multidimensional graphic models, surface texture of object by providing watermark to packages such as video cassette tape, digital versatile disk (DVD), compact disk (CD), paper, label, covering, packaging, plastic and jewel care, also for managing media content is web site when client access it through network device such as personal computer, set top box, network enabled audio or video player, personal digital assistant, smart phones, interactive television system (ITV) using Internet.

ADVANTAGE - Media content management is enhanced by linking media content with metadata.

DESCRIPTION OF DRAWING(S) - The figure shows a system for enhancing

digital asset management.
content database (102)
network (104)
router application (112)
router system (114)
metadata database management system (116)
pp; 12 DwgNo 1/3

Title Terms: MEDIUM; CONTENT; MANAGEMENT; METHOD; FINDER; RELATED; RECEIVE;
REQUEST; WATERMARK; INFORMATION; SEND; RELATED; READ; DEVICE

Derwent Class: T01; T03; W04

International Patent Class (Main): H04L-009/00

International Patent Class (Additional): G06F-017/60

File Segment: EPI

3/5/26 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015705508 **Image available**

WPI Acc No: 2003-767701/200372

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;
2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;
2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;
2001-581665; 2001-595705; 2001-607222; 2002-011177; 2002-041658;
2002-062159; 2002-082807; 2002-154357; 2002-163681; 2002-179003;
2002-188040; 2002-205513; 2002-224088; 2002-226224; 2002-235400;
2002-236852; 2002-238913; 2002-239839; 2002-254659; 2002-256143;
2002-268672; 2002-315095; 2002-361599; 2002-361694; 2002-370756;
2002-382444; 2002-391512; 2002-392708; 2002-393501; 2002-394013;
2002-403568; 2002-405083; 2002-413035; 2002-416925; 2002-435593;
2002-470507; 2002-479804; 2002-498079; 2002-498923; 2002-507125;
2002-508021; 2002-528580; 2002-556177; 2002-590019; 2002-598923;
2002-636862; 2002-642228; 2002-654787; 2002-672857; 2002-673567;
2002-691185; 2002-697772; 2003-045908; 2003-074123; 2003-075114;
2003-090293; 2003-137905; 2003-140183; 2003-174573; 2003-199024;
2003-238411; 2003-266622; 2003-268467; 2003-275465; 2003-327510;
2003-331365; 2003-353776; 2003-362315; 2003-391983; 2003-392393;
2003-401297; 2003-418353; 2003-418436; 2003-419904; 2003-465734;
2003-492022; 2003-557490; 2003-587433; 2003-597620; 2003-615418;
2003-615425; 2003-655604; 2003-655616; 2003-655715; 2003-656012;
2003-658647; 2003-659691; 2003-687554; 2003-696414; 2003-707329;
2003-730410; 2003-777048; 2003-800216; 2003-800961; 2003-802603;
2003-829683; 2003-897231; 2004-031964; 2004-041644; 2004-059015;
2004-059948; 2004-070353; 2004-098221; 2004-119479; 2004-155399;
2004-179244; 2004-179245; 2004-303569; 2004-386915

XRFX Acc No: N03-614937

Image managing method for aerial imagery, involves providing hash for
image where image is digitally watermarked with unique identifiers in
database and uniquely identified with hash of image produced by hashing
algorithm

Patent Assignee: DIGIMARC CORP. (DIGI-N)

Inventor: LOFGREN N E; RHOADS G B

Number of Countries: 100 Number of Patents: 003

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|---------------|------|----------|---------------|------|----------|----------|
| WO 200379606 | A1 | 20030925 | WO 2003US7776 | A | 20030312 | 200372 B |
| US 6664976 | B2 | 20031216 | US 2001284776 | P | 20010418 | 200406 |
| | | | US 2001858336 | A | 20010515 | |
| | | | US 2002100233 | A | 20020313 | |
| AU 2003220245 | A1 | 20030929 | AU 2003220245 | A | 20030312 | 200437 |

Priority Applications (No Type Date): US 2002100233 A 20020313; US
2001284776 P 20010418; US 2001858336 A 20010515

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200379606 A1 E 36 H04L-009/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA
ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB
GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ
UG ZM ZW

US 6664976 B2 G09G-005/00 Provisional application US 2001284776
CIP of application US 2001858336

AU 2003220245 A1 H04L-009/00 Based on patent WO 200379606

Abstract (Basic): WO 200379606 A1

NOVELTY - The method involves providing a hash for an image (20) where the image includes a digital watermark with a unique identifier (22). The images are stored and indexed according to the identifiers in a database. The hash is an algorithm that converts a signal into a lower number of bits and the algorithm are applied to the image to form the hash. The image in the database is uniquely identified with the hash of the image.

USE - Used for managing images in aerial imagery, photography and digital imaging fields.

ADVANTAGE - The watermarks can be applied to any data, thereby facilitating its use in forensic tracking purposes. The use of identifiers helps in identifying various data with different identifiers and hence providing a secure watermarking process that cannot be replicated by unauthorized individuals.

DESCRIPTION OF DRAWING(S) - The drawing shows an associated related images and information with a digital watermark identifier.

Image (20)

Unique identifiers (22)

Digital watermarks (22a, 22b)

Watermark identifier (28)

Image management system (30)

pp; 36 DwgNo 3/8

Title Terms: IMAGE; MANAGE; METHOD; AERIAL; HASH; IMAGE; IMAGE; DIGITAL;
WATERMARK; UNIQUE; IDENTIFY; DATABASE; UNIQUE; IDENTIFY; HASH; IMAGE;
PRODUCE; HASH; ALGORITHM

Derwent Class: P85; S02; T01; T04; W02; W04

International Patent Class (Main): G09G-005/00; H04L-009/00

International Patent Class (Additional): G06K-009/00; G06K-009/62;

H04B-001/66; H04L-009/32

File Segment: EPI; EngPI

3/5/27 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015525283 **Image available**

WPI Acc No: 2003-587433/200355

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;

2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;

2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;

2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;

2001-581665; 2001-595705; 2001-607222; 2002-011177; 2002-041658;

2002-062159; 2002-082807; 2002-154357; 2002-163652; 2002-163681;

2002-179003; 2002-188040; 2002-205513; 2002-224088; 2002-226224;

2002-235400; 2002-236852; 2002-238406; 2002-238913; 2002-239839;

2002-254659; 2002-256143; 2002-268672; 2002-315095; 2002-361599;

2002-361694; 2002-370756; 2002-382444; 2002-391512; 2002-392708;

2002-393501; 2002-394013; 2002-403568; 2002-405083; 2002-413035;

2002-416925; 2002-435593; 2002-470507; 2002-479804; 2002-498079;

2002-498923; 2002-507125; 2002-508021; 2002-528580; 2002-556177;

2002-598690; 2002-598923; 2002-617280; 2002-636862; 2002-642228;
2002-654787; 2002-672857; 2002-673567; 2002-691185; 2002-697772;
2003-045908; 2003-057552; 2003-074123; 2003-090293; 2003-091652;
2003-137905; 2003-140183; 2003-174573; 2003-199024; 2003-219596;
2003-238411; 2003-266622; 2003-268467; 2003-275465; 2003-327510;
2003-331365; 2003-353776; 2003-362315; 2003-391983; 2003-392393;
2003-401297; 2003-418353; 2003-418436; 2003-419661; 2003-419904;
2003-465734; 2003-492022; 2003-557490; 2003-597620; 2003-615418;
2003-615425; 2003-655604; 2003-655616; 2003-655715; 2003-656012;
2003-658647; 2003-659691; 2003-687554; 2003-707329; 2003-730410;
2003-767701; 2003-777048; 2003-800216; 2003-800961; 2003-802603;
2003-829683; 2003-897231; 2004-031964; 2004-041644; 2004-059015;
2004-059948; 2004-070353; 2004-098221; 2004-119479; 2004-155399;
2004-179244; 2004-179245; 2004-303569; 2004-386915

XRPX Acc No: N03-467792

**Method of detecting digital watermark in compressed data stream by
performing calibration of one dimensional signal with one dimensional
calibration signal to compensate for geometric distortion of video signal**

Patent Assignee: DIGIMARC CORP (DIGI-N); CELIK M U (CELI-I)

Inventor: **ALATTAR A M** ; ELLINGSON E E; LEVY K L; **RHOADS G B** ; STAGER R R;
CELIK M U

Number of Countries: 100 Number of Patents: 003

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| WO 200362960 | A2 | 20030731 | WO 2003US1975 | A | 20030122 | 200355 B |
| US 20040034778 | A1 | 20040219 | US 2002404038 | P | 20020815 | 200415 |
| | | | US 2002300921 | A | 20021119 | |
| AU 2003210625 | A1 | 20030902 | AU 2003210625 | A | 20030122 | 200426 |

Priority Applications (No Type Date): US 2002428485 P 20021121; US
2002351565 P 20020122; US 2002404038 P 20020815; US 2002300921 A 20021119

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|--------------|----|---|----|-------------|--|
| WO 200362960 | A2 | E | 53 | G06F-000/00 | |
|--------------|----|---|----|-------------|--|

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA
ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB
GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG
ZM ZW

| | | | | | |
|----------------|----|--|--|-------------|---------------------------------------|
| US 20040034778 | A1 | | | H04L-009/00 | Provisional application US 2002404038 |
|----------------|----|--|--|-------------|---------------------------------------|

| | | | | | |
|---------------|----|--|--|-------------|------------------------------|
| AU 2003210625 | A1 | | | G06F-000/00 | Based on patent WO 200362960 |
|---------------|----|--|--|-------------|------------------------------|

Abstract (Basic): WO 200362960 A2

NOVELTY - The method involves transforming video data into one-dimensional video signal. A calibration of the signal is performed with a one dimensional calibration signal to compensate for geometric distortion of the video signal. The transforming includes combining rows within a video frame into a first one-dimensional signal and involves combining columns within a video frame into a second one-dimensional signal.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(a) a tangible medium on which are stored instructions for performing the claimed method

(b) a method for detecting content flags embedded in host media signal

(c) a method for video watermarking

(d) a method of embedding auxiliary data in a compressed data stream

(e) a method of extracting auxiliary data from a compressed data stream

(f) a method for detecting auxiliary data in a compressed data stream

USE - In digital watermarking and fingerprinting for modifying

physical or electronic media to embed a hidden machine-readable code into the media. The embedded code is imperceptible or nearly imperceptible to the user, yet may be detected through an automated detection process applied to media signals such as images, audio signals, and video signals. It may also be applied to other types of media objects, including documents (e.g., through line, word or character shifting), software, multi-dimensional graphics models, and surface textures of objects.

ADVANTAGE - Allows for several exact copies of video output source with differing payloads.

DESCRIPTION OF DRAWING(S) - The drawing is a flow diagram illustrating a method for detecting one-dimensional calibration signal in a host signal and using them to compute geometric distortion.

pp; 53 DwgNo 1/7

Title Terms: METHOD; DETECT; DIGITAL; WATERMARK; COMPRESS; DATA; STREAM; PERFORMANCE; CALIBRATE; ONE; DIMENSION; SIGNAL; ONE; DIMENSION; CALIBRATE; SIGNAL; COMPENSATE; GEOMETRY; DISTORT; VIDEO; SIGNAL

Derwent Class: T01; W02; W04

International Patent Class (Main): G06F-000/00; H04L-009/00

File Segment: EPI

3/5/28 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent.WPIX.

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015497082 **Image available**

WPI Acc No: 2003-559229/200352

XRPX Acc No: N03-444554

Reversible watermarking for embedding auxiliary data into image, video or other data that are fully recoverable using inverse transform

Patent Assignee: DIGIMARC CORP (DIGI-N); DECKER S K (DECK-I); TIAN J (TIAN-I); LOFGREN N E (LOFG-I); STACH J (STAC-I); ALATTAR A M (ALAT-I)

Inventor: DECKER S K; TIAN J; LOFGREN N E; STACH J; ALATTAR A M

Number of Countries: 100 Number of Patents: 006

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200355130 | A1 | 20030703 | WO 2002US40162 | A | 20021212 | 200352 B |
| US 20030149879 | A1 | 20030807 | US 2001340651 | P | 20011213 | 200358 |
| | | | US 2002404181 | P | 20020816 | |
| | | | US 2002319404 | A | 20021212 | |
| US 20030179900 | A1 | 20030925 | US 2001340651 | P | 20011213 | 200364 |
| | | | US 2002319380 | A | 20021213 | |
| US 20030179901 | A1 | 20030925 | US 2001340651 | P | 20011213 | 200364 |
| | | | US 2002319413 | A | 20021213 | |
| US 20040044893 | A1 | 20040304 | US 2001340651 | P | 20011213 | 200417 |
| | | | US 2002404181 | P | 20020816 | |
| | | | US 2002430511 | P | 20021202 | |
| | | | US 2002319404 | A | 20021212 | |
| | | | US 2003435517 | A | 20030508 | |
| AU 2002357259 | A1 | 20030709 | AU 2002357259 | A | 20021212 | 200428 |

Priority Applications (No Type Date): US 2002430511 P 20021202; US 2001340651 P 20011213; US 2002404181 P 20020816; US 2002319404 A 20021212; US 2002319380 A 20021213; US 2002319413 A 20021213; US 2003435517 A 20030508

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|--------------|------|-----|----|-------------|--------------|
| WO 200355130 | A1 | E | 43 | H04L-009/00 | |

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

| | | |
|-------------------|-------------|---|
| US 20030149879 A1 | H04L-009/00 | Provisional application US 2001340651 Provisional application US 2002404181 |
| US 20030179900 A1 | G06K-009/00 | Provisional application US 2001340651 |
| US 20030179901 A1 | G06K-009/00 | Provisional application US 2001340651 |
| US 20040044893 A1 | H04L-009/00 | Provisional application US 2001340651 Provisional application US 2002404181 Provisional application US 2002430511 CIP of application US 2002319404 |
| AU 2002357259 A1 | H04L-009/00 | Based on patent WO 200355130 |

Abstract (Basic): WO 200355130 A1

NOVELTY - An optional transform is applied, 111, to an original image to produce a transformed image, 112 and certain elements in the transformed image are identified, 113, that have a property that remains identifiable after they are changed by auxiliary data embedding. An auxiliary data stream is embedded in this image that is embedded in elements of the image, 115, to create a new image, 116, and inverse transform can be applied, 117, to generate the image with auxiliary embedded data, 118.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a method of rendering embedded auxiliary data, for a method of decoding auxiliary data and for a storage medium.

USE - Embedding reversible auxiliary data in image data.

DESCRIPTION OF DRAWING(S) - The drawing shows the method.

pp; 43 DwgNo 1E/4

Title Terms: REVERSE; WATERMARK; EMBED; AUXILIARY; DATA; IMAGE; VIDEO; DATA
; RECOVER; INVERSE; TRANSFORM

Derwent Class: T01; W04

International Patent Class (Main): G06K-009/00; **H04L-009/00**

International Patent Class (Additional): H04N-007/167

File Segment: EPI

3/5/29 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015358966 **Image available**

WPI Acc No: 2003-419904/200339

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;
2001-022904; 2001-335855; 2001-357503; 2001-374044; 2001-397673;
2001-425330; 2001-570080; 2001-580828; 2001-581298; 2001-581665;
2001-595705; 2001-607222; 2002-011177; 2002-041658; 2002-062159;
2002-082807; 2002-154357; 2002-163681; 2002-179003; 2002-188040;
2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;
2002-238913; 2002-254659; 2002-256143; 2002-268672; 2002-361599;
2002-370756; 2002-382444; 2002-391512; 2002-392708; 2002-403568;
2002-405083; 2002-413035; 2002-435593; 2002-470507; 2002-479804;
2002-498079; 2002-498923; 2002-507125; 2002-508021; 2002-556177;
2002-590019; 2002-598923; 2002-636862; 2002-642228; 2002-654787;
2002-672857; 2002-673567; 2002-681419; 2002-691185; 2002-697772;
2002-698265; 2002-750104; 2003-045908; 2003-074123; 2003-090293;
2003-137905; 2003-174573; 2003-199024; 2003-238411; 2003-266622;
2003-268467; 2003-275465; 2003-327510; 2003-331365; 2003-353776;
2003-362315; 2003-391983; 2003-392393; 2003-401297; 2003-418353;
2003-418436; 2003-465734; 2003-492022; 2003-557490; 2003-587433;
2003-597620; 2003-615418; 2003-615425; 2003-655604; 2003-655616;
2003-655715; 2003-656012; 2003-658647; 2003-659691; 2003-687554;
2003-707329; 2003-730410; 2003-767701; 2003-777048; 2003-800216;
2003-800961; 2003-802603; 2003-829683; 2003-897231; 2004-031964;
2004-041644; 2004-059015; 2004-059948; 2004-070353; 2004-098221;
2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;

2004-386915

XRPX Acc No: N03-335283

Information encoding method for security document e.g. check, involves
encoding payloads across substrate after payloads are concatenated in
order to retrieve information

Patent Assignee: CARR J S (CARR-I); ELOVITZ A N (ELOV-I); HAWES J L
(HAWE-I); HEIN W C (HEIN-I); MILLER M D (MILL-I); RHOADS G B (RHOA-I);
STEWART S W (STEW-I)

Inventor: CARR J S; ELOVITZ A N; HAWES J L; HEIN W C; MILLER M D; RHOADS G
B ; STEWART S W

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030056104 | A1 | 20030320 | US 94215289 | A | 19940317 | 200339 B |
| | | | US 96614521 | A | 19960315 | |
| | | | US 97967693 | A | 19971112 | |
| | | | US 9874034 | A | 19980506 | |
| | | | US 98127502 | A | 19980731 | |
| | | | US 99158015 | P | 19991006 | |
| | | | US 99163676 | P | 19991105 | |
| | | | US 2000571422 | A | 20000515 | |
| | | | US 2000694465 | A | 20001023 | |
| | | | US 2001939298 | A | 20010824 | |
| | | | US 2001316851 | P | 20010831 | |
| | | | US 2001327687 | P | 20011005 | |
| | | | US 2002352652 | P | 20020128 | |
| | | | US 2002356881 | P | 20020212 | |
| | | | US 200294593 | A | 20020306 | |
| | | | US 2002154621 | A | 20020522 | |
| | | | US 2002172506 | A | 20020614 | |
| | | | US 2002172769 | A | 20020614 | |
| | | | US 2002233069 | A | 20020830 | |

Priority Applications (No Type Date): US 2002233069 A 20020830; US 94215289
A 19940317; US 96614521 A 19960315; US 97967693 A 19971112; US 9874034 A
19980506; US 98127502 A 19980731; US 99158015 P 19991006; US 99163676 P
19991105; US 2000571422 A 20000515; US 2000694465 A 20001023; US
2001939298 A 20010824; US 2001316851 P 20010831; US 2001327687 P 20011005
; US 2002352652 P 20020128; US 2002356881 P 20020212; US 200294593 A
20020306; US 2002154621 A 20020522; US 2002172506 A 20020614; US
2002172769 A 20020614

Patent Details:

| Patent No | Kind | Ln | Pg | Main IPC | Filing Notes |
|----------------|------|----|-------------|----------|---------------------------------------|
| US 20030056104 | A1 | 14 | H04L-009/00 | | Cont of application US 94215289 |
| | | | | | Cont of application US 96614521 |
| | | | | | CIP of application US 97967693 |
| | | | | | CIP of application US 9874034 |
| | | | | | CIP of application US 98127502 |
| | | | | | Provisional application US 99158015 |
| | | | | | Provisional application US 99163676 |
| | | | | | CIP of application US 2000571422 |
| | | | | | CIP of application US 2000694465 |
| | | | | | CIP of application US 2001939298 |
| | | | | | Provisional application US 2001316851 |
| | | | | | Provisional application US 2001327687 |
| | | | | | Provisional application US 2002352652 |
| | | | | | Provisional application US 2002356881 |
| | | | | | CIP of application US 200294593 |
| | | | | | CIP of application US 2002154621 |
| | | | | | CIP of application US 2002172506 |
| | | | | | CIP of application US 2002172769 |
| | | | | | Cont of patent US 5745604 |
| | | | | | CIP of patent US 6122392 |
| | | | | | CIP of patent US 6345104 |
| | | | | | CIP of patent US 6449377 |

Abstract (Basic): US 20030056104 A1

NOVELTY - Payloads are encoded across a substrate after payloads are concatenated in order to retrieve information. Information is divided into payload sets comprised of information subset.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) a check authentication;
- (b) an identification linking method;
- (c) a check clearing process truncating method;
- (d) a digital check image management system;
- (e) a system interaction; and
- (f) a washed security document identification.

USE - For security document e.g. check, notes, mortgage, commercial paper, jewelry certificates, appraisal, insurance documentation.

ADVANTAGE - Uses washable ink. Reduces risk of check being intercepted by counterfeiter. Authorizes cash or check deposit.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of an electronic check image digital watermarking method.

pp; 14 DwgNo 5/6

Title Terms: INFORMATION; ENCODE; METHOD; SECURE; DOCUMENT; CHECK; ENCODE;

SUBSTRATE; AFTER; CONCATENATED; ORDER; RETRIEVAL; INFORMATION

Derwent Class: T01; T05

International Patent Class (Main): H04L-009/00

File Segment: EPI

3/5/30 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015357415 **Image available**

WPI Acc No: 2003-418353/200339

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;

2000-194736; 2000-195398; 2000-365779; 2000-490584; 2001-022904;

2001-335855; 2001-357503; 2001-374044; 2001-397673; 2001-425330;

2001-570080; 2001-580828; 2001-581298; 2001-581665; 2001-595705;

2001-607222; 2002-011177; 2002-041658; 2002-062159; 2002-082807;

2002-154357; 2002-163681; 2002-179003; 2002-188040; 2002-205513;

2002-224088; 2002-226224; 2002-235400; 2002-236852; 2002-238913;

2002-254659; 2002-256143; 2002-268672; 2002-361599; 2002-370756;

2002-382444; 2002-391512; 2002-392708; 2002-403568; 2002-405083;

2002-413035; 2002-435593; 2002-470507; 2002-498079; 2002-498923;

2002-507125; 2002-508021; 2002-556177; 2002-598923; 2002-636862;

2002-642228; 2002-654787; 2002-672857; 2002-673567; 2002-691185;

2002-697772; 2003-045908; 2003-074123; 2003-090293; 2003-137905;

2003-140183; 2003-174573; 2003-199024; 2003-238411; 2003-266622;

2003-268467; 2003-275465; 2003-327510; 2003-331365; 2003-353776;

2003-362315; 2003-362499; 2003-391983; 2003-392393; 2003-401297;

2003-418436; 2003-419904; 2003-465734; 2003-492022; 2003-557490;

2003-587433; 2003-597620; 2003-615418; 2003-615425; 2003-655604;

2003-655616; 2003-655715; 2003-656012; 2003-658647; 2003-659691;

2003-687554; 2003-707329; 2003-730410; 2003-767701; 2003-777048;

2003-800216; 2003-800961; 2003-802603; 2003-829683; 2003-897231;

2004-031964; 2004-059015; 2004-059948; 2004-070353; 2004-098221;

2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;

2004-386915

XRFX Acc No: N03-333752

Digital watermark extraction method in multi-dimensional graphics application, involves detecting attributes associated with watermark signal, by performing logarithmic sampling of audio/video signals

Patent Assignee: RHOADS G B (RHOA-I); SHARMA R K (SHAR-I); DIGIMARC CORP (DIGI-N)

Inventor: RHOADS G B ; SHARMA R K

Number of Countries: 001 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|-------------|------|----------|----------|
| US 20030039377 | A1 | 20030227 | US 96649419 | A | 19960516 | 200339 B |

| | | | | | |
|------------|----|---------------|---------------|----------|-----------------|
| | | US 96746613 | A | 19961112 | |
| | | US 98186962 | A | 19981105 | |
| | | US 99452023 | A | 19991130 | |
| | | US 2000566533 | A | 20000508 | |
| | | US 2002202367 | A | 20020722 | |
| US 6704869 | B2 | 20040309 | US 96649419 | A | 19960516 200425 |
| | | | US 96746613 | A | 19961112 |
| | | | US 99452023 | A | 19991130 |
| | | | US 2000566533 | A | 20000508 |
| | | | US 2002202367 | A | 20020722 |

Priority Applications (No Type Date): US 2000566533 A 20000508; US 96649419 A 19960516; US 96746613 A 19961112; US 98186962 A 19981105; US 99452023 A 19991130; US 2002202367 A 20020722

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|----|-------------|--|
| US 20030039377 | A1 | | 13 | G06K-009/00 | Cont of application US 96649419 CIP of application US 96746613 CIP of application US 98186962 CIP of application US 99452023 Cont of application US 2000566533 Cont of patent US 5862260 CIP of patent US 6122403 CIP of patent US 6408082 Cont of patent US 6424725 |
| US 6704869 | B2 | | | H04L-009/00 | Cont of application US 96649419 CIP of application US 96746613 CIP of application US 99452023 Cont of application US 2000566533 Cont of patent US 5862260 CIP of patent US 6122403 CIP of patent US 6408082 Cont of patent US 6424725 |

Abstract (Basic): US 20030039377 A1

NOVELTY - The method performs logarithmic sampling of a media signal such as audio/video signal, to produce a sampled signal. The sampled signal is analyzed in order to detect attributes associated with a watermark signal. Based on the detected attributes, the digital watermark is extracted.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for computer-readable medium storing instructions for extracting digital watermark.

USE - For extracting digital watermark in multi-dimensional graphics applications.

ADVANTAGE - The detection of attributes enable determination of the position of the watermark in a suspected signal, even in case where the signal has been translated subsequent to encoding of the watermark or corrupted.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating the watermark detection process.

pp; 13 DwgNo 1/5

Title Terms: DIGITAL; WATERMARK; EXTRACT; METHOD; MULTI; DIMENSION; GRAPHIC; APPLY; DETECT; ATTRIBUTE; ASSOCIATE; WATERMARK; SIGNAL; PERFORMANCE; LOGARITHM; SAMPLE; AUDIO; VIDEO; SIGNAL

Derwent Class: T01; T04

International Patent Class (Main): G06K-009/00; H04L-009/00

File Segment: EPI

3/5/31 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015269115 **Image available**

WPI Acc No: 2003-330044/200331

XRPX Acc No: N03-264153

Background watermark processing computer used in steganography, analyzes audio/video content stored in memory using software, and alters operation upon detection of digital watermark data, automatically

Patent Assignee: DIGIMARC CORP (DIGI-N)

Inventor: RHOADS G B

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030009670 | A1 | 20030109 | US 2001825463 | A | 20010402 | 200331 B |

Priority Applications (No Type Date): US 2001825463 A 20010402

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|-----|-------------|--------------|
| US 20030009670 | A1 | | 110 | H04L-009/00 | |

Abstract (Basic): US 20030009670 A1

NOVELTY - The computer automatically analyzes the audio/video contents stored in its memory using a software, and alters its operation with respect to the contents upon detection of digital watermark data.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for background watermark processing method.

USE - In steganography for processing images in smart business cards such as credit card, debit card, cash card, medical records, identification/authentication tag in automobile, airline industry.

ADVANTAGE - Provides enhanced security for the audio/video contents.

DESCRIPTION OF DRAWING(S) - The figure shows a hierarchical arrangement of signature blocks, sub-blocks and bit cells used in background watermark processing.

pp; 110 DwgNo 42/59

Title Terms: BACKGROUND; WATERMARK; PROCESS; COMPUTER; ANALYSE; AUDIO;

VIDEO; CONTENT; STORAGE; MEMORY; SOFTWARE; ALTER; OPERATE; DETECT;

DIGITAL; WATERMARK; DATA; AUTOMATIC

Derwent Class: S05; T01; T04; T05

International Patent Class (Main): H04L-009/00

International Patent Class (Additional): H04N-007/167

File Segment: EPI

3/5/32 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015207931 **Image available**

WPI Acc No: 2003-268467/200326

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;
2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;
2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;
2001-581665; 2001-595705; 2001-607222; 2002-011177; 2002-041658;
2002-062159; 2002-082807; 2002-154357; 2002-163681; 2002-179003;
2002-188040; 2002-205513; 2002-224088; 2002-226224; 2002-235400;
2002-236852; 2002-238913; 2002-239839; 2002-254659; 2002-256143;
2002-268672; 2002-315095; 2002-361599; 2002-361694; 2002-370756;
2002-382444; 2002-391512; 2002-392708; 2002-393501; 2002-394013;
2002-403568; 2002-405083; 2002-413035; 2002-416925; 2002-435593;
2002-470507; 2002-479804; 2002-498079; 2002-498923; 2002-507125;
2002-508021; 2002-528580; 2002-556177; 2002-590019; 2002-598923;
2002-636862; 2002-642228; 2002-654787; 2002-672857; 2002-673567;
2002-681419; 2002-691185; 2002-697772; 2002-698265; 2003-045908;
2003-074123; 2003-090293; 2003-137905; 2003-140183; 2003-174573;
2003-199024; 2003-238411; 2003-266622; 2003-275465; 2003-327510;
2003-331365; 2003-353776; 2003-362315; 2003-391983; 2003-392393;
2003-401297; 2003-418353; 2003-418436; 2003-419904; 2003-465734;
2003-492022; 2003-557490; 2003-587433; 2003-597620; 2003-615418;

2003-615425; 2003-655604; 2003-655616; 2003-655715; 2003-656012;
2003-658647; 2003-659691; 2003-687554; 2003-707329; 2003-730410;
2003-767701; 2003-777048; 2003-800216; 2003-800961; 2003-802603;
2003-829683; 2003-897231; 2004-031964; 2004-041644; 2004-059015;
2004-059948; 2004-070353; 2004-098221; 2004-119479; 2004-155399;
2004-179244; 2004-179245; 2004-303569; 2004-386915

XRFX Acc No: N03-213303

Method of encoding information for water-marking electronic data for security reasons, by the use of an additional substrate

Patent Assignee: HAWES J L (HAWES-I); DIGIMARC CORP (DIGI-N)

Inventor: HAWES J L; CARR J S; ELOVITZ A N; HIEN W C; MILLER M D; RHOADS G B ; STEWART S W

Number of Countries: 100 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200319449 | A2 | 20030306 | WO 2002US27954 | A | 20020830 | 200326 B |
| US 20030150922 | A1 | 20030814 | US 2002356881 | P | 20020212 | 200355 |
| | | | US 200294593 | A | 20020306 | |
| | | | US 2002172506 | A | 20020614 | |

Priority Applications (No Type Date): US 2002172769 A 20020614; US 2001316851 P 20010831; US 2001327687 P 20011005; US 2002352652 P 20020128 ; US 2002172506 A 20020614; US 2002356881 P 20020212; US 200294593 A 20020306

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|--------------|----|---|----|-------------|--|
| WO 200319449 | A2 | E | 27 | G06F-017/60 | |
|--------------|----|---|----|-------------|--|

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

| | | | | | |
|----------------|----|--|--|-------------|---------------------------------------|
| US 20030150922 | A1 | | | G06K-019/06 | Provisional application US 2002356881 |
|----------------|----|--|--|-------------|---------------------------------------|

CIP of application US 200294593

Abstract (Basic): WO 200319449 A2

NOVELTY - The information encoding method uses a security document (100) which has an additional substrate (102) which can be printed on. The information printed on this substrate is hidden and corresponds to specific text or numerals located within the document. The security information is divided into a number of payload sets.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a digital checking system.

USE - For water-marking electronic data for security reasons.

ADVANTAGE - This method provides enhanced security for electronic documents.

DESCRIPTION OF DRAWING(S) - The figure shown is a schematic diagram of a check.

Check (100)

Security substrate (102)

pp; 27 DwgNo 1/6

Title Terms: METHOD; ENCODE; INFORMATION; WATER; MARK; ELECTRONIC; DATA;

SECURE; REASON; ADD; SUBSTRATE

Derwent Class: T01; T04; W01; W02

International Patent Class (Main): G06F-017/60; G06K-019/06

International Patent Class (Additional): G06K-009/00; H04K-001/00;

H04L-009/00

File Segment: EPI

3/5/33 (Item 13 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015029776

WPI Acc No: 2003-090293/200308

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-490584; 2001-022904;
2001-335855; 2001-357503; 2001-374044; 2001-397673; 2001-425330;
2001-570080; 2001-580828; 2001-581298; 2001-581665; 2001-595705;
2001-607222; 2002-011177; 2002-041658; 2002-082807; 2002-154357;
2002-163681; 2002-179003; 2002-188040; 2002-205513; 2002-224088;
2002-226224; 2002-235400; 2002-236852; 2002-238913; 2002-254659;
2002-256143; 2002-268672; 2002-361599; 2002-370756; 2002-382444;
2002-391512; 2002-392708; 2002-403568; 2002-405083; 2002-413035;
2002-435593; 2002-470507; 2002-498079; 2002-498923; 2002-507125;
2002-508021; 2002-556177; 2002-598923; 2002-636862; 2002-642228;
2002-654787; 2002-672857; 2002-673567; 2002-691185; 2002-697772;
2003-045908; 2003-074123; 2003-137905; 2003-174573; 2003-199024;
2003-238411; 2003-266622; 2003-268467; 2003-275465; 2003-327510;
2003-331365; 2003-353776; 2003-362315; 2003-391983; 2003-392393;
2003-401297; 2003-418353; 2003-418436; 2003-419904; 2003-465734;
2003-492022; 2003-557490; 2003-587433; 2003-597620; 2003-615418;
2003-615425; 2003-655604; 2003-655616; 2003-655715; 2003-656012;
2003-658647; 2003-659691; 2003-687554; 2003-707329; 2003-730410;
2003-767701; 2003-777048; 2003-800216; 2003-800961; 2003-802603;
2003-829683; 2003-897231; 2004-031964; 2004-059015; 2004-059948;
2004-070353; 2004-098221; 2004-119479; 2004-155399; 2004-179244;
2004-179245; 2004-303569; 2004-386915

XRFX Acc No: N03-071278

Digital elevation model processing method for reconnaissance and remote sensing systems, involves watermarking image data acquired by satellite and generating map accordingly

Patent Assignee: RHOADS G B (RHOA-I)

Inventor: RHOADS G B

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20020124171 | A1 | 20020905 | US 2001800093 | A | 20010305 | 200308 B |

Priority Applications (No Type Date): US 2001800093 A 20010305

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|----|-------------|--------------|
| US 20020124171 | A1 | | 7 | G09G-005/00 | |

Abstract (Basic): US 20020124171 A1

NOVELTY - The image data acquired by a satellite is watermarked and stored in a database. A map is generated from the database is watermarked.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for database storing component map data.

USE - For processing Digital Elevation Model of earth surfaces such as buildings, man-made object, geological features acquired by a satellite for applications such as reconnaissance and remote sensing systems, guidance of piloted, remotely piloted vehicles.. Also applicable to other forms of aerial surveillance data, albedo map and other topographic/mapping information obtained from aerial images, ground survey, watermarking of movie data in digital cinema applications.

ADVANTAGE - The imagery is automatically geo-referenced and combined with previously-collected data sets so as to facilitate generation of up-to-data Digital Elevation Model and map.

pp; 7 DwgNo 0/0

Title Terms: DIGITAL; ELEVATE; MODEL; PROCESS; METHOD; RECONNAISSANCE; REMOTE; SENSE; SYSTEM; WATERMARK; IMAGE; DATA; ACQUIRE; SATELLITE; GENERATE; MAP; ACCORD

Derwent Class: P85; T01; W04; W06

International Patent Class (Main): G09G-005/00

International Patent Class (Additional): G06F-007/00; G06F-017/00;

H04L-009/00

File Segment: EPI; EngPI

3/5/34 (Item 14 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

014877066 **Image available**

WPI Acc No: 2002-697772/200275

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-490584; 2001-022904;
2001-335855; 2001-357503; 2001-374044; 2001-397673; 2001-425330;
2001-570080; 2001-580828; 2001-581298; 2001-581665; 2001-595705;
2001-607222; 2002-011177; 2002-041658; 2002-082807; 2002-154357;
2002-163681; 2002-179003; 2002-188040; 2002-205513; 2002-224088;
2002-226224; 2002-235400; 2002-236852; 2002-238913; 2002-254659;
2002-256143; 2002-268672; 2002-361599; 2002-370756; 2002-382444;
2002-391512; 2002-392708; 2002-394013; 2002-403568; 2002-405083;
2002-413035; 2002-416925; 2002-435593; 2002-470507; 2002-479804;
2002-498079; 2002-498923; 2002-507125; 2002-508021; 2002-528580;
2002-556177; 2002-590019; 2002-598690; 2002-598923; 2002-636862;
2002-642228; 2002-654787; 2002-672857; 2002-673567; 2002-681419;
2002-682171; 2002-691185; 2002-698265; 2003-045908; 2003-057552;
2003-074123; 2003-090293; 2003-137905; 2003-140183; 2003-174573;
2003-174769; 2003-198610; 2003-198807; 2003-199024; 2003-199025;
2003-209294; 2003-209403; 2003-238411; 2003-266622; 2003-268467;
2003-275465; 2003-327510; 2003-331365; 2003-353776; 2003-362315;
2003-391983; 2003-392393; 2003-401297; 2003-418353; 2003-418436;
2003-419904; 2003-465734; 2003-492022; 2003-557490; 2003-587433;
2003-597620; 2003-615418; 2003-615425; 2003-655604; 2003-655616;
2003-655715; 2003-656012; 2003-658647; 2003-659691; 2003-687554;
2003-707329; 2003-730410; 2003-767701; 2003-777048; 2003-800216;
2003-800961; 2003-802603; 2003-829683; 2003-897231; 2004-031964;
2004-041644; 2004-059015; 2004-059948; 2004-070353; 2004-098221;
2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-246589;
2004-303569; 2004-386915

XRPX Acc No: N02-550233

**Digital watermark embedding method for authentication of printed objects,
involves detecting errors introduced by incorrect reproduction of
unstable halftone screen structure by reading embedded auxiliary signal
in digital image**

Patent Assignee: BRUNK H L (BRUN-I); HAYNES M E (HAYN-I); RHOADS G B
(RHOA-I); RODRIGUEZ T F (RODR-I); DIGIMARC CORP (DIGI-N)

Inventor: BRUNK H L; HAYNES M E; RHOADS G B; RODRIGUEZ T F

Number of Countries: 100 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| US 20020099943 | A1 | 20020725 | US 2001263987 | P | 20010124 | 200275 B |
| | | | US 2001938870 | A | 20010823 | |
| WO 200319465 | A1 | 20030306 | WO 2002US27068 | A | 20020823 | 200319 |

Priority Applications (No Type Date): US 2001263987 P 20010124; US
2001938870 A 20010823

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|----|-------------|---------------------------------------|
| US 20020099943 | A1 | | 9 | H04L-009/00 | Provisional application US 2001263987 |

WO 200319465 A1 E G06K-009/46

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU
ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB
GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20020099943 A1

NOVELTY - An auxiliary signal is embedded in a digital image such that the signal is imperceptible and machine-readable. The image is converted to a halftone image using unstable halftone screen structure. The ink flow errors introduced by incorrect reproduction of unstable halftone screen structure are automatically detectable by reading the auxiliary signal.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Computer readable medium having program for performing digital watermark embedding process;
- (2) Printed object carrying halftone image;
- (3) Printed object authenticating method; and
- (4) Computer readable medium having program for authenticating printed object.

USE - For embedding digital watermark in images, audio signals, video signals, text documents, software, multi-directional graphics models and surface texture of objects for authenticating the printed objects.

ADVANTAGE - Enables detection of copying or photo duplication and printing/re-scanning of printed object. Enables automatic authentication with lower quality camera devices such as web cams and common image scanners. Allows watermarks to serve the function of determining authenticating as well as carrying a message payload useful for variety of applications.

DESCRIPTION OF DRAWING(S) - The figure illustrates flow diagram of illustrating the steps of watermark embedding and halftone screen processing programs.

pp; 9 DwgNo 1/3

Title Terms: DIGITAL; WATERMARK; EMBED; METHOD; AUTHENTICITY; PRINT; OBJECT
; DETECT; ERROR; INTRODUCING; INCORRECT; REPRODUCE; UNSTABLE; HALFTONE;
SCREEN; STRUCTURE; READ; EMBED; AUXILIARY; SIGNAL; DIGITAL; IMAGE

Derwent Class: T01; T04; W01

International Patent Class (Main): G06K-009/46; H04L-009/00

International Patent Class (Additional): H04N-001/44

File Segment: EPI

3/5/35 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014821522

WPI Acc No: 2002-642228/200269

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;

2000-194736; 2000-195398; 2000-365779; 2000-490584; 2001-022904;

2001-335855; 2001-357503; 2001-374044; 2001-397673; 2001-425330;

2001-570080; 2001-580828; 2001-581298; 2001-581665; 2001-595705;

2001-607222; 2002-011177; 2002-041658; 2002-082807; 2002-154357;

2002-163681; 2002-179003; 2002-188040; 2002-205513; 2002-224088;

2002-226224; 2002-235400; 2002-236852; 2002-238913; 2002-254659;

2002-256143; 2002-268672; 2002-361599; 2002-370756; 2002-382444;

2002-391512; 2002-392708; 2002-403568; 2002-405083; 2002-413035;

2002-435593; 2002-470507; 2002-498079; 2002-498923; 2002-507125;

2002-508021; 2002-556177; 2002-598923; 2002-636862; 2002-654787;

2002-672857; 2002-673567; 2002-691185; 2002-697772; 2003-045908;

2003-074123; 2003-090293; 2003-137905; 2003-174573; 2003-199024;

2003-238411; 2003-266622; 2003-268467; 2003-275465; 2003-327510;

2003-331365; 2003-353776; 2003-362315; 2003-391983; 2003-392393;

2003-401297; 2003-418353; 2003-418436; 2003-419904; 2003-465734;

2003-492022; 2003-557490; 2003-587433; 2003-597620; 2003-615418;

2003-615425; 2003-655604; 2003-655616; 2003-655715; 2003-656012;

2003-658647; 2003-659691; 2003-687554; 2003-707329; 2003-730410;

2003-767701; 2003-777048; 2003-800216; 2003-800961; 2003-802603;

2003-829683; 2003-897231; 2004-031964; 2004-059015; 2004-059948;

2004-070353; 2004-098221; 2004-119479; 2004-155399; 2004-179244;

2004-179245; 2004-303569; 2004-386915

XRPX Acc No: N02-507607

Steganographically embedded copyright data decoding method involves counteracting errors introduced into processed content data, during data decoding

Patent Assignee: RHOADS G B (RHOA-I); DIGIMARC CORP (DIGI-N)

Inventor: **RHOADS G B**

Number of Countries: 001 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20020085718 | A1 | 20020704 | US 93154866 | A | 19931118 | 200269 B |
| | | | US 94215289 | A | 19940317 | |
| | | | US 94327426 | A | 19941021 | |
| | | | US 95436134 | A | 19950508 | |
| | | | US 97951858 | A | 19971016 | |
| | | | US 2000482752 | A | 20000113 | |
| | | | US 2001963343 | A | 20010925 | |
| US 6654887 | B2 | 20031125 | US 93154866 | A | 19931118 | 200403 |
| | | | US 94215289 | A | 19940317 | |
| | | | US 94327426 | A | 19941021 | |
| | | | US 95436134 | A | 19950508 | |
| | | | US 97951858 | A | 19971016 | |
| | | | US 2000482752 | A | 20000113 | |
| | | | US 2001963343 | A | 20010925 | |

Priority Applications (No Type Date): US 95436134 A 19950508; US 93154866 A 19931118; US 94215289 A 19940317; US 94327426 A 19941021; US 97951858 A 19971016; US 2000482752 A 20000113; US 2001963343 A 20010925

Patent Details:

| Patent No | Kind | Ln | Pg | Main IPC | Filing Notes |
|----------------|------|----|----|--------------|--|
| US 20020085718 | A1 | 58 | | H04N-007/167 | CIP of application US 93154866 CIP of application US 94215289 CIP of application US 94327426 Cont of application US 95436134 Div ex application US 97951858 Div ex application US 2000482752 Cont of patent US 5748763 CIP of patent US 5768426 Div ex patent US 6026193 Div ex patent US 6330335 |
| US 6654887 | B2 | | | H04L-009/34 | CIP of application US 93154866 CIP of application US 94215289 CIP of application US 94327426 Cont of application US 95436134 Div ex application US 97951858 Div ex application US 2000482752 Cont of patent US 5748763 CIP of patent US 5768426 Div ex patent US 6026193 Div ex patent US 6330335 |

Abstract (Basic): US 20020085718 A1

NOVELTY - An error information relating to errors, introduced into the processed content data is obtained. When decoding the content data, the errors are counteracted using a filter.

USE - For decoding steganographically embedded copyright data from multimedia data.

ADVANTAGE - Enables reliable decoding of steganographically embedded copyright information, by counteracting the computed media content.

pp; 58 DwgNo 0/27

Title Terms: EMBED; DATA; DECODE; METHOD; COUNTERACT; ERROR; INTRODUCING; PROCESS; CONTENT; DATA; DATA; DECODE

Derwent Class: W02

International Patent Class (Main): **H04L-009/34** ; H04N-007/167

International Patent Class (Additional): G06K-009/46

File Segment: EPI

3/5/36 (Item 16 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

014816156 **Image available**

WPI Acc No: 2002-636862/200268

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;
2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;
2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;
2001-581665; 2001-595705; 2001-607222; 2002-011177; 2002-041658;
2002-062159; 2002-082807; 2002-154357; 2002-163681; 2002-179003;
2002-188040; 2002-205513; 2002-224088; 2002-226224; 2002-235400;
2002-236852; 2002-238913; 2002-239839; 2002-254659; 2002-256143;
2002-268672; 2002-315095; 2002-361599; 2002-361694; 2002-370756;
2002-382444; 2002-391512; 2002-392708; 2002-393501; 2002-394013;
2002-403568; 2002-405083; 2002-413035; 2002-416925; 2002-435593;
2002-470507; 2002-479804; 2002-498079; 2002-498923; 2002-507125;
2002-508021; 2002-528580; 2002-556177; 2002-590019; 2002-598923;
2002-642228; 2002-654787; 2002-672857; 2002-673567; 2002-691185;
2002-697772; 2002-698265; 2003-045908; 2003-074123; 2003-075114;
2003-090293; 2003-137905; 2003-140183; 2003-174573; 2003-174769;
2003-199024; 2003-199025; 2003-209294; 2003-209403; 2003-238411;
2003-266622; 2003-268467; 2003-275465; 2003-327510; 2003-331365;
2003-353776; 2003-362315; 2003-391983; 2003-392393; 2003-401297;
2003-418353; 2003-418436; 2003-419904; 2003-465734; 2003-492022;
2003-557490; 2003-587433; 2003-597620; 2003-615418; 2003-615425;
2003-655604; 2003-655616; 2003-655715; 2003-656012; 2003-658647;
2003-659691; 2003-687554; 2003-696414; 2003-707329; 2003-730410;
2003-767701; 2003-777048; 2003-800216; 2003-800961; 2003-802603;
2003-829683; 2003-897231; 2004-031964; 2004-041644; 2004-059015;
2004-059948; 2004-070353; 2004-098221; 2004-119479; 2004-155399;
2004-179244; 2004-179245; 2004-246589; 2004-303569; 2004-386915

XRFX Acc No: N02-503105

**Digital watermarking process for use with map data, e.g. acquired by
satellite and other sensors uses GPS information to compare with
information extracted from image**

Patent Assignee: DIGIMARC CORP (DIGI-N); LOFGREN N E (LOFG-I); RHOADS G B
(RHOA-I); CLEMENTS L (CLEM-I); LOFGREN N A (LOFG-I); PATTERSON P R
(PATT-I); BRUNDAGE T J (BRUN-I); LOFGREN N (LOFG-I); HEIN W C (HEIN-I);
MACLINTOSH B T (MACL-I); SEDER P A (SEDE-I); LOWE B D (LOWE-I); MCKINLEY T
J (MCKI-I); ANGLIN H W (ANGL-I); BRUNK H L (BRUN-I); CATTONE J (CATT-I);
HUDSON E C (HUDS-I); JONES K C (JONE-I); LEVY K L (LEVY-I); PERRY B W
(PERR-I); STEWART S W (STEW-I); CARR J S (CARR-I); CHRISTOPHER M S
(CHRI-I); CONWELL W Y (CONW-I); HANNIGAN B T (HANN-I); MEYER J R (MEYE-I)
; STAGER R R (STAG-I); WEAVER M M (WEAV-I)

Inventor: BRUNDAGE T J; CLEMENTS L R; LOFGREN N E; PATTERSON P R; RHOADS G
B; CLEMENTS L; LOFGREN N A; LOFGREN N; HEIN W C; MACLINTOSH B T; SEDER P
A; LOWE B D; MCKINLEY T J; ANGLIN H W; BRUNK H L; CATTONE J; HUDSON E C;
JONES K C; LEVY K L; PERRY B W; STEWART S W; CARR J S; CHRISTOPHER M S;
CONWELL W Y; HANNIGAN B T; MEYER J R; STAGER R R; WEAVER M M

Number of Countries: 100 Number of Patents: 011

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| WO 200271685 | A1 | 20020912 | WO 2002US6858 | A | 20020305 | 200268 B |
| US 20020147910 | A1 | 20021010 | US 2001833013 | A | 20010410 | 200269 |
| US 20020122564 | A1 | 20020905 | US 2001800093 | A | 20010305 | 200270 |
| | | | US 2001284163 | P | 20010416 | |
| | | | US 2001284776 | P | 20010418 | |
| | | | US 20012954 | A | 20011123 | |
| US 20020124024 | A1 | 20020905 | US 2001800093 | A | 20010305 | 200270 |
| | | | US 2001284163 | P | 20010416 | |
| | | | US 2001284776 | P | 20010418 | |
| | | | US 2001858336 | A | 20010515 | |
| US 20020135600 | A1 | 20020926 | US 2001800093 | A | 20010305 | 200270 |

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|----------------|----|----------|---------------|---|----------|--------|
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| US 20020154144 | A1 | 20021024 | US 2001284776 | P | 20010418 | 200273 |
| | | | US 2001858336 | A | 20010515 | |
| | | | US 2002100233 | A | 20020313 | |
| US 20020176003 | A1 | 20021128 | US 2000697009 | A | 20001025 | 200281 |
| | | | US 2001284163 | P | 20010416 | |
| | | | US 2002121433 | A | 20020411 | |
| US 20030012569 | A1 | 20030116 | US 2001284163 | P | 20010416 | 200308 |
| | | | US 2002121435 | A | 20020411 | |
| US 20030032033 | A1 | 20030213 | US 2001284163 | P | 20010416 | 200314 |
| | | | US 2002122141 | A | 20020412 | |
| US 20030187798 | A1 | 20031002 | US 2001284163 | P | 20010416 | 200365 |
| | | | US 2001327687 | P | 20011005 | |
| | | | US 200112676 | A | 20011105 | |
| | | | US 2002122141 | A | 20020412 | |
| | | | US 2002265348 | A | 20021004 | |
| AU 2002242325 | A1 | 20020919 | AU 2002242325 | A | 20020305 | 200433 |

Priority Applications (No Type Date): US 2001997400 A 20011128; US 2001800093 A 20010305; US 2001833013 A 20010410; US 2001284163 P 20010416 ; US 2001284776 P 20010418; US 2001858336 A 20010515; US 20012954 A 20011023; US 2002100233 A 20020313; US 2000697009 A 20001025; US 2002121433 A 20020411; US 2002121435 A 20020411; US 2002122141 A 20020412 ; US 2001327687 P 20011005; US 200112676 A 20011105; US 2002265348 A 20021004

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

WO 200271685 A1 E 62 H04L-009/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

US 20020147910 A1 H04L-009/00

US 20020122564 A1 G06K-009/00

CIP of application US 2001800093
Provisional application US 2001284163
Provisional application US 2001284776

US 20020124024 A1 G06F-017/00

CIP of application US 2001800093
Provisional application US 2001284163
Provisional application US 2001284776

US 20020135600 A1 G09G-005/00

US 20020154144 A1 G06F-007/00

CIP of application US 2001800093
Provisional application US 2001284776

US 20020176003 A1 G06F-009/00

CIP of application US 2001858336
CIP of application US 2000697009
Provisional application US 2001284163

US 20030012569 A1 G03B-017/24

Provisional application US 2001284163

US 20030032033 A1 C12Q-001/68

Provisional application US 2001284163

US 20030187798 A1 H04K-001/00

Provisional application US 2001284163

Provisional application US 2001327687
CIP of application US 200112676
CIP of application US 2002122141

AU 2002242325 A1 H04L-009/00

Based on patent WO 200271685

Abstract (Basic): WO 200271685 A1

NOVELTY - Watermark location information is extracted from an image. The physical location is then determined using e.g. GPS. The location information is compared with the physical location, to check whether they match or are inconsistent.

DETAILED DESCRIPTION - INDEPENDENT claims are also included for the following:

(1) An apparatus to read digital watermarks embedded within a map.

- (2) A system comprising user terminals, database and gatekeeper.
- (3) A module for use in a network.
- (4) An article of manufacture comprising steganographically embedded data.

USE - For use with map data, e.g. acquired by satellite and other sensors.

ADVANTAGE - Enables improved management and coordination of huge amounts of aerial imagery.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow diagram of the method.

pp; 62 DwgNo 4/16

Title Terms: DIGITAL; WATERMARK; PROCESS; MAP; DATA; ACQUIRE; SATELLITE; SENSE; GROUP; INFORMATION; COMPARE; INFORMATION; EXTRACT; IMAGE

Derwent Class: P82; P85; T01; W06

International Patent Class (Main): C12Q-001/68; G03B-017/24; G06F-007/00; G06F-009/00; G06F-017/00; G06K-009/00; G09G-005/00; H04K-001/00;

H04L-009/00

International Patent Class (Additional): G01N-033/48; G01N-033/50; G06F-011/30; G06F-012/14; G06F-017/60; G06F-019/00; G09C-003/00;

G09C-005/00; **H04L-009/32** ; H04L-015/34; H04N-007/167

File Segment: EPI; EngPI

3/5/37 (Item 17 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014707803 **Image available**

WPI Acc No: 2002-528507/200256

Related WPI Acc No: 2003-067657

XRPX Acc No: N02-418473

Audio or video content tracking method for broadcast monitoring, involves decoding forensic identifier associated with forensic database and forensic identifier associated with user

Patent Assignee: DIGIMARC CORP (DIGI-N); HIATT R S (HIAT-I); LEVY K L (LEVY-I); RHOADS G B (RHOA-I)

Inventor: HIATT R S; LEVY K L; **RHOADS G B**

Number of Countries: 100 Number of Patents: 003

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200250760 | A1 | 20020627 | WO 2001US49395 | A | 20011217 | 200256 B |
| AU 200235231 | A | 20020701 | AU 200235231 | A | 20011217 | 200264 |
| US 20030056103 | A1 | 20030320 | US 2000256628 | P | 20001218 | 200323 |
| | | | US 200117679 | A | 20011213 | |

Priority Applications (No. Type. Date): US 200117679 A. 20011213; US 2000256628 P 20001218; US 2001336209 P 20011030

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200250760 A1 E 75 G06K-009/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

AU 200235231 A G06K-009/00 Based on patent WO 200250760

US 20030056103 A1 H04L-009/00 Provisional application US 2000256628

Abstract (Basic): WO 200250760 A1

NOVELTY - A forensic identifier in a digital watermark, associated with a forensic database, is decoded. Another forensic identifier associated with the user is also decoded.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Digital watermarking method;

(2) Computer readable medium storing digital watermarking program;
and

(3) Broadcast monitoring system.

USE - For broadcast monitoring, copyright communication, copy/play control, file verification, personal computer (PC) connected to e-commerce, forensic tracking, content monitoring, asset management and set-top box connected to e-commerce.

ADVANTAGE - Standardization of data allows the architecture to support a wide variety of systems. Allows content owners to buy and sell content with minimal changes with no changes to the watermark payload.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the connected application's system overview.

pp; 75 DwgNo 1/11

Title Terms: AUDIO; VIDEO; CONTENT; TRACK; METHOD; BROADCAST; MONITOR;
DECODE; FORENSIC; IDENTIFY; ASSOCIATE; FORENSIC; DATABASE; FORENSIC;
IDENTIFY; ASSOCIATE; USER

Derwent Class: T01; W01; W02

International Patent Class (Main): G06K-009/00; **H04L-009/00**

International Patent Class (Additional): G06F-017/30

File Segment: EPI

3/5/38 (Item 18 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014659100 **Image available**

WPI Acc No: 2002-479804/200251

Related WPI Acc No: 1996-518986; 1997-310156; 1998-009129; 1998-110064;

1998-286225; 1999-204782; 1999-444465; 2000-013122; 2000-194736;

2000-195398; 2000-365779; 2000-464989; 2000-490584; 2000-647035;

2001-022904; 2001-335855; 2001-357503; 2001-374044; 2001-397673;

2001-425330; 2001-570080; 2001-580828; 2001-581298; 2001-581665;

2001-595705; 2001-607222; 2002-011177; 2002-041658; 2002-062159;

2002-082807; 2002-154357; 2002-179003; 2002-188040; 2002-205513;

2002-224088; 2002-226224; 2002-235400; 2002-236852; 2002-238913;

2002-239839; 2002-254659; 2002-256143; 2002-268672; 2002-315095;

2002-361599; 2002-361694; 2002-382444; 2002-391512; 2002-392708;

2002-393501; 2002-394013; 2002-405083; 2002-413035; 2002-416925;

2002-435593; 2002-498079; 2002-498923; 2002-507125; 2002-508021;

2002-528580; 2002-556177; 2002-636862; 2002-654787; 2002-672857;

2002-673567; 2002-697772; 2002-698265; 2002-750104; 2003-045908;

2003-074123; 2003-137905; 2003-140183; 2003-268467; 2003-327510;

2003-401297; 2003-419904; 2003-465734; 2003-587433; 2003-615418;

2003-615425; 2003-655616; 2003-655715; 2003-656012; 2003-767701;

2003-777048; 2003-800216; 2003-800961; 2004-041644; 2004-059948;

2004-386915

XRPX Acc No: N02-378877

Performing method for identifier registration for encoding information into media signals using batch identifier registration system to enable user to submit request for batch of unique identifiers to be embedded in media signals

Patent Assignee: DIGIMARC CORP (DIGI-N); HEIN W C (HEIN-I); MCKINLEY T J (MCKI-I); REED A M (REED-I); RHOADS G B (RHOA-I); RODRIGUEZ T F (RODR-I); ALATTAR O M (ALAT-I); BRUNDAGE T J (BRUN-I); BRUNK H L (BRUN-I); PATTERSON P R (PATT-I); CARR J S (CARR-I); CHRISTOPHER M S (CHRI-I); CONWELL W Y (CONW-I); HANNIGAN B T (HANN-I); LEVY K L (LEVY-I); MEYER J R (MEYE-I); SEDER P A (SEDE-I); STAGER R R (STAG-I); WEAVER M M (WEAV-I)

Inventor: HEIN W C; MCKINLEY T J; REED A M; **RHOADS G B**; RODRIGUEZ T F; ALATTAR O M; BRUNDAGE T J; BRUNK H L; PATTERSON P R; CARR J S; CHRISTOPHER M S; CONWELL W Y; HANNIGAN B T; LEVY K L; MEYER J R; SEDER P A; STAGER R R; WEAVER M M; MCKINLEY J T; REED M A; RHOADS B G; RODRIGUEZ F T

Number of Countries: 095 Number of Patents: 008

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|-----------|------|------|-------------|------|------|------|
|-----------|------|------|-------------|------|------|------|

| | | | | | | | |
|----------------|----|----------|----------------|---|----------|--------|---|
| WO 200239235 | A2 | 20020516 | WO 2001US51170 | A | 20011102 | 200251 | B |
| US 20020120849 | A1 | 20020829 | US 2000503881 | A | 20000214 | 200259 | |
| | | | US 2000706505 | A | 20001102 | | |
| | | | US 2001327687 | P | 20011005 | | |
| | | | US 200153488 | A | 20011102 | | |
| AU 200236678 | A | 20020521 | AU 200236678 | A | 20011102 | 200260 | |
| US 20020126873 | A1 | 20020912 | US 2000553084 | A | 20000419 | 200262 | |
| | | | US 2001963344 | A | 20010925 | | |
| | | | US 2001327687 | P | 20011005 | | |
| | | | US 200274677 | A | 20020211 | | |
| US 20030058477 | A1 | 20030327 | US 2001963344 | A | 20010925 | 200325 | N |
| US 20030167235 | A1 | 20030904 | US 2001327687 | P | 20011005 | 200359 | |
| | | | US 2002265085 | A | 20021003 | | |
| US 20030187798 | A1 | 20031002 | US 2001284163 | P | 20010416 | 200365 | |
| | | | US 2001327687 | P | 20011005 | | |
| | | | US 200112676 | A | 20011105 | | |
| | | | US 2002122141 | A | 20020412 | | |
| | | | US 2002265348 | A | 20021004 | | |
| US 6763124 | B2 | 20040713 | US 2000553084 | A | 20000419 | 200446 | |
| | | | US 2001963344 | A | 20010925 | | |
| | | | US 2001327687 | P | 20011005 | | |
| | | | US 200274677 | A | 20020211 | | |

Priority Applications (No Type Date): US 2001327687 P 20011005; US 2000706505 A 20001102; US 2000503881 A 20000214; US 200153488 A 20011102; US 2000553084 A 20000419; US 2001963344 A 20010925; US 200274677 A 20020211; US 2002265085 A 20021003; US 2001284163 P 20010416; US 200112676 A 20011105; US 2002122141 A 20020412; US 2002265348 A 20021004

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|--------------|----|---|----|-------------|--|
| WO 200239235 | A2 | E | 52 | G06F-000/00 | |
|--------------|----|---|----|-------------|--|

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

| | | | | | |
|----------------|----|--|-------------|--|---|
| US 20020120849 | A1 | | H04L-009/00 | | CIP of application US 2000503881 CIP of application US 2000706505 Provisional application US 2001327687 |
| AU 200236678 | A | | G06F-000/00 | | Based on patent WO 200239235 |
| US 20020126873 | A1 | | G06K-009/00 | | CIP of application US 2000553084 CIP of application US 2001963344 Provisional application US 2001327687 |
| US 20030058477 | A1 | | G06K-015/00 | | |
| US 20030167235 | A1 | | G06F-017/60 | | Provisional application US 2001327687 |
| US 20030187798 | A1 | | H04K-001/00 | | Provisional application US 2001284163 |

| | | | | | |
|------------|----|--|-------------|--|---|
| | | | | | Provisional application US 2001327687 CIP of application US 200112676 CIP of application US 2002122141 |
| US 6763124 | B2 | | G06K-009/00 | | CIP of application US 2000553084 CIP of application US 2001963344 Provisional application US 2001327687 CIP of patent US 6590996 |

Abstract (Basic): WO 200239235 A2

NOVELTY - The method involves establishing a connection with a registration process. Authentication information is provided to the registration process. A registration request is submitted to the registration process. Finally an embedder control file is received, including media signal identifiers and embedder instructions.

The embedder control file is submitted to a water mark embedder which automatically embeds a set of media files with corresponding identifiers according to the embedder instructions in the embedder control file.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a

computer readable medium, for a watermark embedder, for a media signal identifier registration server, for a method of segmenting a media signal for parallel watermarking operations and for a distributed digital watermark embedder.

USE - For encoding information into media signals.

ADVANTAGE - Automates processes for batch embedding of identifiers into media content to prevent bottlenecks in content creation.

DESCRIPTION OF DRAWING(S) - The figure shows a batch identifier registration and watermark embedding system.

pp; 52 DwgNo 1/7

Title Terms: PERFORMANCE; METHOD; IDENTIFY; REGISTER; ENCODE; INFORMATION; MEDIUM; SIGNAL; BATCH; IDENTIFY; REGISTER; SYSTEM; ENABLE; USER; SUBMIT; REQUEST; BATCH; UNIQUE; IDENTIFY; EMBED; MEDIUM; SIGNAL

Derwent Class: P85; T01; W06

International Patent Class (Main): G06F-000/00; G06F-017/60; G06K-009/00; G06K-015/00; H04K-001/00; **H04L-009/00**

International Patent Class (Additional): G06K-015/02; G09C-003/00;

G09C-005/00; H04N-001/40; H04N-007/167

File Segment: EPI; EngPI

3/5/39 (Item 19 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014435440 **Image available**

WPI Acc No: 2002-256143/200230

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;
2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;
2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;
2001-581665; 2001-595705; 2001-607222; 2002-011177; 2002-041658;
2002-062159; 2002-082807; 2002-154357; 2002-163681; 2002-179003;
2002-188040; 2002-205513; 2002-224088; 2002-226224; 2002-235400;
2002-236852; 2002-238913; 2002-239839; 2002-254659; 2002-268672;
2002-315095; 2002-361599; 2002-361694; 2002-370756; 2002-382444;
2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-403568;
2002-405083; 2002-413035; 2002-416925; 2002-435593; 2002-470507;
2002-479804; 2002-498079; 2002-498923; 2002-507125; 2002-508021;
2002-528580; 2002-556177; 2002-598923; 2002-636862; 2002-642228;
2002-654787; 2002-672857; 2002-673567; 2002-691185; 2002-697772;
2003-045908; 2003-074123; 2003-090293; 2003-137905; 2003-140183;
2003-174573; 2003-199024; 2003-238411; 2003-266622; 2003-268467;
2003-275465; 2003-327510; 2003-331365; 2003-353776; 2003-362315;
2003-362499; 2003-391983; 2003-392393; 2003-401297; 2003-418353;
2003-418436; 2003-419904; 2003-465734; 2003-492022; 2003-557490;
2003-587433; 2003-597620; 2003-615418; 2003-615425; 2003-655604;
2003-655616; 2003-655715; 2003-656012; 2003-658647; 2003-659691;
2003-687554; 2003-707329; 2003-730410; 2003-767701; 2003-777048;
2003-800216; 2003-800961; 2003-802603; 2003-829683; 2003-897231;
2004-031964; 2004-041644; 2004-059015; 2004-059948; 2004-070353;
2004-098221; 2004-119479; 2004-155399; 2004-179244; 2004-179245;
2004-303569; 2004-386915

XRPX Acc No: N02-198140

Digital watermark screening and detection by screening a suspect signal to compute detection values evincing presence and strength of a watermark

Patent Assignee: DIGIMARC CORP (DIGI-N); RHOADS G B (RHOA-I); SHARMA R K (SHAR-I)

Inventor: **RHOADS G B ; SHARMA R K**

Number of Countries: 095 Number of Patents: 004

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|--------------|------|----------|---------------|------|----------|--------|
| WO 200169518 | A1 | 20010920 | WO 2001US7373 | A | 20010307 | 200230 |
| AU 200140105 | A | 20010924 | AU 200140105 | A | 20010307 | 200230 |
| US 6516079 | B1 | 20030204 | US 2000503881 | A | 20000214 | 200313 |
| | | | US 2000526982 | A | 20000315 | |

US 20030174862 A1 20030918 US 2000503881 A 20000214 200362
US 2000526982 A 20000315
US 2003359015 A 20030204

Priority Applications (No Type Date): US 2000526982 A 20000315; US
2000503881 A 20000214; US 2003359015 A 20030204

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200169518 A1 E 23 G06K-009/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL
PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200140105 A Based on patent WO 200169518
US 6516079 B1 G06K-009/00 CIP of application US 2000503881
US 20030174862 A1 G06K-009/00 CIP of application US 2000503881
Cont of application US 2000526982
Cont of patent US 6516079

Abstract (Basic): WO 200169518 A1

NOVELTY - A detector correlates the calibration signal or its
attributes to a suspect signal, 202; using a watermark key to select
initial portions of the suspect signal expected to contain a watermark
in order to compute correlation values for candidate portions 204 and
the detector then computes relative detection values based on the
detection values, 206, for control of further detection actions.
Unmarked signals are screened and accepted or rejected, 208, or direct
further detection operations are performed on the signal, 210.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a method
of using detection values to control watermark detection and for a
computer readable medium with detection software.

USE - Watermark detection in multimedia content.

ADVANTAGE - Using absolute and relative detection values to provide
complementary information.

DESCRIPTION OF DRAWING(S) - The drawing is a flow diagram of the
process.

pp; 23 DwgNo 2/4

Title Terms: DIGITAL; WATERMARK; SCREEN; DETECT; SCREEN; SUSPECT; SIGNAL;
COMPUTATION; DETECT; VALUE; PRESENCE; STRENGTH; WATERMARK

Derwent Class: T01; W01; W02; W03; W04

International Patent Class (Main): G06K-009/00

International Patent Class (Additional): G06K-009/36; G07D-007/00;
H03M-001/22; H04K-001/00; H04L-009/00; H04N-007/16; H04N-009/64;
H04N-011/00

File Segment: EPI

3/5/40 (Item 20 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014262109 **Image available**

WPI Acc No: 2002-082807/200211

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;
2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;
2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;
2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;
2001-581665; 2001-595705; 2001-607222; 2002-011177; 2002-041658;
2002-062159; 2002-154357; 2002-163681; 2002-179003; 2002-188040;
2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;
2002-238913; 2002-239839; 2002-254659; 2002-256143; 2002-268672;
2002-315095; 2002-361599; 2002-361694; 2002-370756; 2002-381697;
2002-382444; 2002-391512; 2002-392708; 2002-393501; 2002-394013;
2002-403568; 2002-405083; 2002-413035; 2002-416925; 2002-435593;

2002-470507; 2002-479804; 2002-498079; 2002-498923; 2002-507125;
 2002-508021; 2002-528580; 2002-556177; 2002-589277; 2002-598923;
 2002-636862; 2002-642228; 2002-654787; 2002-672857; 2002-673567;
 2002-673570; 2002-691185; 2002-697772; 2003-045908; 2003-074123;
 2003-090293; 2003-137905; 2003-140183; 2003-174573; 2003-199024;
 2003-199025; 2003-209294; 2003-209403; 2003-238411; 2003-266622;
 2003-268467; 2003-275465; 2003-327510; 2003-331365; 2003-353776;
 2003-362315; 2003-391983; 2003-392393; 2003-401297; 2003-418353;
 2003-418436; 2003-419904; 2003-465734; 2003-492022; 2003-557490;
 2003-587433; 2003-597620; 2003-615418; 2003-615425; 2003-655604;
 2003-655616; 2003-655715; 2003-656012; 2003-658647; 2003-659691;
 2003-687554; 2003-707329; 2003-730410; 2003-767701; 2003-777048;
 2003-800216; 2003-800961; 2003-802603; 2003-829683; 2003-897231;
 2004-031964; 2004-041644; 2004-059015; 2004-059948; 2004-070353;
 2004-098221; 2004-119479; 2004-155399; 2004-179244; 2004-179245;
 2004-303569; 2004-386915

XRPX Acc No: N02-061747

Method of encoding auxiliary information in image by computing change in attribute of image sample to encode auxiliary information in image and changing color values of image sample to effect change in image sample attribute

Patent Assignee: DIGIMARC CORP (DIGI-N); REED A M (REED-I); RHOADS G B (RHOA-I)

Inventor: REED A M; **RHOADS G B**

Number of Countries: 095 Number of Patents: 006

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200182215 | A1 | 20011101 | WO 2001US12571 | A | 20010417 | 200211 B |
| AU 200155446 | A | 20011107 | AU 200155446 | A | 20010417 | 200219 |
| US 20030079130 | A1 | 20030424 | US 2000553084 | A | 20000419 | 200330 |
| | | | US 2002209053 | A | 20020730 | |
| US 6590996 | B1 | 20030708 | US 2000503881 | A | 20000214 | 200353 |
| | | | US 2000553084 | A | 20000419 | |
| US 6700995 | B2 | 20040302 | US 2000553084 | A | 20000419 | 200417 |
| | | | US 2002209053 | A | 20020730 | |
| US 20040125983 | A1 | 20040701 | US 2000503881 | A | 20000214 | 200443 |
| | | | US 2000553084 | A | 20000419 | |
| | | | US 2003613913 | A | 20030703 | |

Priority Applications (No Type Date): US 2000553084 A 20000419; US 2002209053 A 20020730; US 2000503881 A 20000214; US 2003613913 A 20030703

Patent Details:

Patent No Kind Lan Pg ~ Main IPC ~ Filing Notes

WO 200182215 A1 E 85 G06K-009/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
 CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
 JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL
 PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
 IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

| | | | |
|----------------|----|--------------|-----------------------------------|
| AU 200155446 | A | | Based on patent WO 200182215 |
| US 20030079130 | A1 | H04L-009/00 | Cont of application US 2000553084 |
| US 6590996 | B1 | G06K-009/100 | CIP of application US 2000503881 |
| US 6700995 | B2 | G06K-009/00 | Cont of application US 2000553084 |
| US 20040125983 | A1 | G06K-009/00 | CIP of application US 2000503881 |
| | | | Cont of application US 2000553084 |
| | | | Cont of patent US 6590996 |
| | | | CIP of patent US 6614914 |

Abstract (Basic): WO 200182215 A1

NOVELTY - The method involves computing a change in an attribute of an image sample to encode auxiliary information in the image. Color values of the image sample are then processed to effect the change in the image sample attribute with minimized impact on visibility. The changing the color values includes transforming the change in the image sample attribute to a change in color components of the image sample.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(a) a computer readable medium
(b) a method for assessing whether a watermark in an image is valid
USE - In color image processing in e.g. color masking technology, color adaptive encoding etc.

ADVANTAGE - Enables the user to specify the color or color regions to embed a watermark signal more or less strongly than other colors. The transition into selected color regions is made less visible, by smoothly changing the signal strength depending on the distance from the selected color region. Also, it enables the user to select the color region by selecting pixels having the desired color in the image to be watermarked.

DESCRIPTION OF DRAWING(S) - The drawing is a block diagram illustrating a watermark system according to the present invention.

pp; 85 DwgNo 1/25

Title Terms: METHOD; ENCODE; AUXILIARY; INFORMATION; IMAGE; COMPUTATION; CHANGE; ATTRIBUTE; IMAGE; SAMPLE; ENCODE; AUXILIARY; INFORMATION; IMAGE; CHANGE; COLOUR; VALUE; IMAGE; SAMPLE; EFFECT; CHANGE; IMAGE; SAMPLE; ATTRIBUTE

Derwent Class: T01

International Patent Class (Main): G06K-009/00; G06K-009/100; H04L-009/00

File Segment: EPI

3/5/41 (Item 21 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014241459 **Image available**

WPI Acc No: 2002-062159/200208

Related WPI Acc No: 1996-518986; 1997-310156; 1998-009129; 1998-110064;

1998-286225; 1999-204782; 1999-444465; 2000-013122; 2000-194736;
2000-195398; 2000-365779; 2000-464989; 2000-490584; 2000-647035;
2001-022904; 2001-335855; 2001-357503; 2001-374044; 2001-397673;
2001-425330; 2001-570080; 2001-580828; 2001-581298; 2001-581665;
2001-595705; 2001-607222; 2002-011177; 2002-041658; 2002-082807;
2002-154357; 2002-163652; 2002-188040; 2002-205513; 2002-224088;
2002-226224; 2002-235400; 2002-236852; 2002-238406; 2002-238913;
2002-239839; 2002-254659; 2002-256143; 2002-268672; 2002-315095;
2002-361599; 2002-361694; 2002-382444; 2002-391512; 2002-393501;
2002-394013; 2002-405083; 2002-413035; 2002-416925; 2002-435593;
2002-479804; 2002-498079; 2002-498923; 2002-507125; 2002-508021;
2002-528580; 2002-556177; 2002-590019; 2002-598690; 2002-617280;
2002-636862; 2002-654787; 2002-672857; 2002-673567; 2002-698265;
2003-045908; 2003-057552; 2003-074123; 2003-075114; 2003-091652;
2003-137905; 2003-140183; 2003-219596; 2003-268467; 2003-327510;
2003-353776; 2003-362315; 2003-362499; 2003-391983; 2003-401297;
2003-418353; 2003-418436; 2003-419661; 2003-419904; 2003-465734;
2003-587433; 2003-615418; 2003-615425; 2003-655616; 2003-655715;
2003-656012; 2003-658647; 2003-687554; 2003-696414; 2003-767701;
2003-777048; 2003-800216; 2003-800961; 2003-829683; 2003-897231;
2004-031964; 2004-041644; 2004-059948; 2004-119479; 2004-155399;
2004-303569; 2004-386915

XRPX Acc No: N02-046135

Method of commerce over Internet between user and merchant computers by passing authentication ticket from user to merchant to facilitate transaction and providing authentication ticket from merchant to financial institution

Patent Assignee: DIGIMARC CORP (DIGI-N); LEVY K L (LEVY-I); MILLER M D (MILL-I); SHARMA R K (SHAR-I)

Inventor: LEVY K L; MILLER M D; SHARMA R K; ANGLIN H W; LOFGREN N; MACINTOSH B T; SEDER P A

Number of Countries: 095 Number of Patents: 003

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200184438 | A1 | 20011108 | WO 2001US14014 | A | 20010430 | 200208 B |
| AU 200159313 | A | 20011112 | AU 200159313 | A | 20010430 | 200222 |
| US 20040128512 | A1 | 20040701 | WO 2001US14014 | A | 20010430 | 200443 |

Priority Applications (No Type Date): US 2001790322 A 20010221; US
2000562049 A 20000501; US 2003275197 A 20030304

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200184438 A1 E 57 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL
PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200159313 A G06F-017/60 Based on patent WO 200184438

US 20040128512 A1 H04L-009/00

Abstract (Basic): WO 200184438 A1

NOVELTY - A financial institution (FI) (48) identifier is associated with the document and passes an identifier and a session ticket to a user computer (42). The FI contacts via the FI identifier and passes to the FI the session ticket to obtain an authentication ticket. The latter is passes from the user to a merchant computer (44) to facilitate a transaction. The authentication ticket is provided from the merchant computer to the FI.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

- (a) a method of verifying data
- (b) a system for exchanging data
- (c) a method of gaining permission
- (d) a method of preventing on line attacks
- (e) a computer readable medium
- (f) a method for facilitating voting
- (g) a method of providing trial access for on-line website
- (h) a method to access a secure location
- (i) a watermark combination lock
- (j) a method of securely transmitting image data over the Internet

USE - In hidden data systems, using in documents employing digital watermarks for facilitating e-commerce transactions.

ADVANTAGE - Assures that an on-line purchaser of goods has physical custody of the credit card being charged. Without such custody, the credit card issuer will refuse the requested transaction.

DESCRIPTION OF DRAWING(S) - The drawing illustrates a system according to an illustrative embodiment of the present invention...

user computer (42)

merchant computer (44)

financial institution (FI) (48)

pp; 57 DwgNo 2/15

Title Terms: METHOD; USER; MERCHANT; COMPUTER; PASS; AUTHENTICITY; TICKET;
USER; MERCHANT; FACILITATE; TRANSACTION; AUTHENTICITY; TICKET; MERCHANT;
FINANCIAL; INSTITUTION

Derwent Class: T01; T05

International Patent Class (Main): G06F-017/60; H04L-009/00

File Segment: EPI

3/5/42 (Item 22 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014190480 **Image available**

WPI Acc No: 2002-011177/200201

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;

2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;

2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;

2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;

2001-581665; 2001-595705; 2001-607222; 2002-041658; 2002-062159;

2002-082807; 2002-154357; 2002-163681; 2002-179003; 2002-188040;

2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;
2002-238913; 2002-239839; 2002-254659; 2002-256143; 2002-268672;
2002-315095; 2002-361599; 2002-361694; 2002-370756; 2002-382444;
2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-403568;
2002-405083; 2002-413035; 2002-416925; 2002-435593; 2002-470507;
2002-479804; 2002-498079; 2002-498923; 2002-507125; 2002-508021;
2002-528580; 2002-556177; 2002-590019; 2002-598923; 2002-636862;
2002-642228; 2002-654787; 2002-672857; 2002-673567; 2002-681419;
2002-691185; 2002-697772; 2002-698265; 2003-045908; 2003-074123;
2003-075114; 2003-090293; 2003-137905; 2003-140183; 2003-174573;
2003-199024; 2003-238411; 2003-266622; 2003-268467; 2003-275465;
2003-327510; 2003-331365; 2003-353776; 2003-362315; 2003-391983;
2003-392393; 2003-401297; 2003-418353; 2003-418436; 2003-419904;
2003-465734; 2003-492022; 2003-557490; 2003-587433; 2003-597620;
2003-615418; 2003-615425; 2003-655604; 2003-655616; 2003-655715;
2003-656012; 2003-658647; 2003-659691; 2003-687554; 2003-696414;
2003-707329; 2003-730410; 2003-767701; 2003-777048; 2003-800216;
2003-800961; 2003-802603; 2003-829683; 2003-897231; 2004-031964;
2004-041644; 2004-059015; 2004-059948; 2004-070353; 2004-098221;
2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;
2004-386915

XRPX Acc No: N02-009265

Authentication of physical and electronic media objects using digital watermarks for encoding auxiliary data into a host signal so that the watermark is imperceptible

Patent Assignee: DIGIMARC CORP (DIGI-N); ALATTAR A (ALAT-I); CARR J S (CARR-I); LOFGREN N (LOFG-I); RHOADS G B (RHOA-I); SEDER P A (SEDE-I)
Inventor: **ALATTAR A** ; CARR J S; LOFGREN N; **RHOADS G B** ; SEDER P A;

ALATTAR A M

Number of Countries: 094 Number of Patents: 004

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200180169 | A1 | 20011025 | WO 2001US12561 | A | 20010417 | 200201 B |
| US 20020009208 | A1 | 20020124 | US 95512993 | A | 19950809 | 200210 |
| | | | US 96637531 | A | 19960425 | |
| | | | US 96649419 | A | 19960516 | |
| | | | US 98186962 | A | 19981105 | |
| | | | US 2000503881 | A | 20000214 | |
| | | | US 2000198138 | P | 20000417 | |
| | | | US 2000198849 | P | 20000421 | |
| | | | US 2001837564 | A | 20010417 | |
| AU 200155445 | A | 20011030 | AU 200155445 | A | 20010417 | 200219 |
| US 20030138128 | A1 | 20030724 | US 95512993 | A | 19950809 | 200356 |
| | | | US 96763847 | A | 19961204 | |
| | | | US 98109259 | P | 19981119 | |
| | | | US 98198022 | A | 19981123 | |
| | | | US 99442780 | A | 19991118 | |
| | | | US 2000198138 | P | 20000417 | |
| | | | US 2000198849 | P | 20000421 | |
| | | | US 2001837564 | A | 20010417 | |
| | | | US 200111129 | A | 20011109 | |
| | | | US 2002326575 | A | 20021220 | |

Priority Applications (No Type Date): US 2000198849 P 20000421; US 2000198138 P 20000417; US 95512993 A 19950809; US 96637531 A 19960425; US 96649419 A 19960516; US 98186962 A 19981105; US 2000503881 A 20000214; US 2001837564 A 20010417; US 96763847 A 19961204; US 98109259 P 19981119; US 98198022 A 19981123; US 99442780 A 19991118; US 200111129 A 20011109; US 2002326575 A 20021220

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
WO 200180169 A1 E 90 G06K-009/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR

IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
 US 20020009208 A1 G06K-009/00 CIP of application US 95512993
 CIP of application US 96637531
 Cont of application US 96649419
 CIP of application US 98186962
 CIP of application US 2000503881
 Provisional application US 2000198138
 Provisional application US 2000198849
 CIP of patent US 5822436
 Cont of patent US 5862260
 AU 200155445 A Based on patent WO 200180169
 US 20030138128 A1 G06K-009/00 Cont of application US 95512993
 Cont of application US 96763847
 Provisional application US 98109259
 CIP of application US 98198022
 Cont of application US 99442780
 Provisional application US 2000198138
 Provisional application US 2000198849
 CIP of application US 2001837564
 CIP of application US 200111129
 Cont of patent US 5841886
 Cont of patent US 6389151
 CIP of patent US 6546112

Abstract (Basic): WO 200180169 A1

NOVELTY - A digital signal (100), a message (102) and control parameters (104) are input and a watermark embedding processor (106) converts the message into a watermark information signal, which is then combined with the input signal and possibly with an orientation pattern to create a watermarked signal (108). This signal is transmitted to a watermark detector (110), also receiving control parameters (114) and performing correlation or other operations on the captured image in order to determine the presence of a watermark and its orientation, used by a reader (116) to extract the message.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a method of encoding auxiliary data into a host signal, for a method of authenticating a media object, for a computer readable medium with software, for an object bearing a media signal, for an identification document and for a decoder.

USE - Authenticating physical and electronic media objects using watermarks.

DESCRIPTION OF DRAWING(S) - The drawing is a block diagram of the system

Message (102)
 Watermarked signal (108)
 Processor (106)
 Watermark detector (110)
 Control parameters (114)
 Reader (116)
 pp; 90 DwgNo 1/21

Title Terms: AUTHENTICITY; PHYSICAL; ELECTRONIC; MEDIUM; OBJECT; DIGITAL; WATERMARK; ENCODE; AUXILIARY; DATA; HOST; SIGNAL; SO; WATERMARK

Derwent Class: T01; T04

International Patent Class (Main): G06K-009/00

International Patent Class (Additional): G06K-009/36; G06K-009/40;

H04L-009/00

File Segment: EPI

3/5/43 (Item 23 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014123010 **Image available**

WPI Acc No: 2001-607222/200169

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;
 1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;

2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;
 2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-374044;
 2001-397673; 2001-425330; 2001-570080; 2001-580828; 2001-581298;
 2001-581665; 2001-595705; 2002-011177; 2002-041658; 2002-062159;
 2002-082807; 2002-154357; 2002-163681; 2002-179003; 2002-188040;
 2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;
 2002-238913; 2002-239839; 2002-254659; 2002-256143; 2002-268672;
 2002-315095; 2002-361599; 2002-361694; 2002-370756; 2002-382444;
 2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-403568;
 2002-405083; 2002-413035; 2002-416925; 2002-435593; 2002-470507;
 2002-479804; 2002-498079; 2002-498923; 2002-507125; 2002-508021;
 2002-528580; 2002-556177; 2002-598923; 2002-636862; 2002-642228;
 2002-654787; 2002-672857; 2002-673567; 2002-691185; 2002-697772;
 2003-045908; 2003-074123; 2003-090293; 2003-137905; 2003-140183;
 2003-174573; 2003-199024; 2003-238411; 2003-266622; 2003-268467;
 2003-275465; 2003-327510; 2003-331365; 2003-353776; 2003-362315;
 2003-391983; 2003-392393; 2003-401297; 2003-418353; 2003-418436;
 2003-419904; 2003-465734; 2003-492022; 2003-557490; 2003-587433;
 2003-597620; 2003-615418; 2003-615425; 2003-655604; 2003-655616;
 2003-655715; 2003-656012; 2003-658647; 2003-659691; 2003-687554;
 2003-707329; 2003-730410; 2003-767701; 2003-777048; 2003-800216;
 2003-800961; 2003-802603; 2003-829683; 2003-897231; 2004-031964;
 2004-041644; 2004-059015; 2004-059948; 2004-070353; 2004-098221;
 2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;
 2004-386915

XRFX Acc No: N01-453279

File browser system decodes an object identifier from selected object file and displays metadata or action associated with media object file

Patent Assignee: DIGIMARC CORP (DIGI-N); JONES K C (JONE-I)

Inventor: JONES K C; RAMOS D O; **RHOADS G B**

Number of Countries: 095 Number of Patents: 006

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| WO 200161508 | A1 | 20010823 | WO 2001US4812 | A | 20010214 | 200169 B |
| AU 200137017 | A | 20010827 | AU 200137017 | A | 20010214 | 200176 |
| US 20010046069 | A1 | 20011129 | US 2000183681 | P | 20000219 | 200202 |
| | | | US 2001784391 | A | 20010215 | |
| EP 1257921 | A1 | 20021120 | EP 2001909242 | A | 20010214 | 200301 |
| | | | WO 2001US4812 | A | 20010214 | |
| KR 2003007432 | A | 20030123 | KR 2002710746 | A | 20020817 | 200336 |
| JP 2003523697 | W | 20030805 | JP 2001560828 | A | 20010214 | 200360 |
| | | | WO 2001US4812 | A | 20010214 | |

Priority Applications (No Type Date): US 2000636102 A 20000810; US 2000183681 P 20000219; US 2000191778 P 20000324; US 2001784391 A 20010215

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200161508 A1 E 68 G06F-013/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
 CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
 KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
 RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
 IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200137017 A Based on patent WO 200161508

US 20010046069 A1 H04N-001/00 Provisional application US 2000183681

EP 1257921 A1 E G06F-013/00 Based on patent WO 200161508

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
 LI LT LU LV MC MK NL PT RO SE SI TR

KR 2003007432 A G06F-013/00

JP 2003523697 W 81 H04N-001/387 Based on patent WO 200161508

Abstract (Basic): WO 200161508 A1

NOVELTY - A file browser displays media object files stored in memory, in a user interface. A file browser extension decodes an object identifier from selected object file and displays metadata or action

associated with media object file through object identifier, in an extension of user interface.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Watermark decoder system;
- (b) Internet browser;
- (c) User interface extension method;
- (d) Media object rendering method;
- (e) Electronic messaging system;
- (f) Electronic messages distribution control system;
- (g) Electronic messages distribution control method;
- (h) Electronic messages transmitting method;
- (i) Content filtering system;
- (j) Distributed watermark spider system;
- (k) File browsing method

USE - File browser system e.g. internet browser (claimed) especially with digital water markencoding-decoding applications, for media objects including audio signals and video signals, documents, software, multidimensional graphic models, surface textures of objects.

ADVANTAGE - Since the user is given an opportunity to control various stages of watermark detection, an enhanced file browser system is obtained.

DESCRIPTION OF DRAWING(S) - The figure shows the e.g. of user interface features enabled by integrating watermark decoder on internet browser.

pp; 68 DwgNo 3/13

Title Terms: FILE; SYSTEM; DECODE; OBJECT; IDENTIFY; SELECT; OBJECT; FILE;

DISPLAY; ACTION; ASSOCIATE; MEDIUM; OBJECT; FILE

Derwent Class: P85; T01; T04; W01

International Patent Class (Main): G06F-013/00; H04N-001/00; H04N-001/387

International Patent Class (Additional): G06F-015/16; G06T-001/00;

G09C-005/00; **H04L-009/00** ; H04N-007/08; H04N-007/081

File Segment: EPI; EngPI

3/5/44 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

013889831 **Image available**

WPI Acc No: 2001-374044/200139

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;

2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-490584;

2000-647035; 2001-022904; 2001-335855; 2001-357503; 2001-397673;

2001-425330; 2001-570080; 2001-580828; 2001-581298; 2001-581665;

2001-595705; 2001-607222; 2002-011177; 2002-041658; 2002-062159;

2002-082807; 2002-154357; 2002-163681; 2002-179003; 2002-188040;

2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;

2002-238913; 2002-239839; 2002-254659; 2002-256143; 2002-268672;

2002-315095; 2002-361599; 2002-361694; 2002-370756; 2002-382444;

2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-403568;

2002-405083; 2002-413035; 2002-416925; 2002-435593; 2002-470507;

2002-479804; 2002-498079; 2002-498923; 2002-507125; 2002-508021;

2002-528580; 2002-556177; 2002-590019; 2002-598923; 2002-636862;

2002-642228; 2002-654787; 2002-672857; 2002-673567; 2002-681419;

2002-691185; 2002-697772; 2002-698265; 2003-045908; 2003-074123;

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2003-238411; 2003-266622; 2003-268467; 2003-275465; 2003-327510;

2003-331365; 2003-353776; 2003-362315; 2003-391983; 2003-392393;

2003-401297; 2003-418353; 2003-418436; 2003-419904; 2003-465734;

2003-492022; 2003-557490; 2003-587433; 2003-597620; 2003-615418;

2003-615425; 2003-655604; 2003-655616; 2003-655715; 2003-656012;

2003-658647; 2003-659691; 2003-687554; 2003-707329; 2003-730410;

2003-767701; 2003-777048; 2003-800216; 2003-800961; 2003-802603;

2003-829683; 2003-897231; 2004-031964; 2004-041644; 2004-059015;

2004-059948; 2004-070353; 2004-098221; 2004-119479; 2004-155399;

2004-179244; 2004-179245; 2004-303569; 2004-386915

XRPX Acc No: N01-273666

**Digital watermarking method for audio and video data broadcasting,
involves encoding digital source data to obtain steganographic auxiliary
bit data and crediting payments in response to received auxiliary data**

Patent Assignee: DIGIMARC CORP (DIGI-N); RHOADS G B (RHOA-I); STAGER R R
(STAG-I); CARR J S (CARR-I); DAVIS B L (DAVI-I); BRADLEY B A (BRAD-I);
CONWELL W Y (CONW-I); LEVY K L (LEVY-I); GUSTAFSON A E (GUST-I); EVANS D
B (EVAN-I)

Inventor: CARR J S; DAVIS B L; **RHOADS G B**; STAGER R R; BRADLEY B A;
CONWELL W Y; LEVY K L; GUSTAFSON A E; EVANS D B

Number of Countries: 089 Number of Patents: 023

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|----------------|------|----------|----------|
| WO 200070523 | A1 | 20001123 | WO 2000US13798 | A | 20000518 | 200139 B |
| AU 200051457 | A | 20001205 | AU 200051457 | A | 20000518 | 200139 |
| US 20010034705 | A1 | 20011025 | US 99134782 | P | 19990519 | 200170 |
| | | | US 99337590 | A | 19990621 | |
| | | | US 2000690773 | A | 20001017 | |
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| US 6311214 | B1 | 20011030 | US 95508083 | A | 19950727 | 200172 |
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| | | | US 99342689 | A | 19990629 | |
| US 20010044744 | A1 | 20011122 | US 99134782 | P | 19990519 | 200176 |
| | | | US 99337590 | A | 19990621 | |
| | | | US 2001804692 | A | 20010312 | |
| US 20010053234 | A1 | 20011220 | US 99134782 | P | 19990519 | 200206 |
| | | | US 99337590 | A | 19990621 | |
| | | | US 2001804679 | A | 20010312 | |
| US 20020012443 | A1 | 20020131 | US 99134782 | P | 19990519 | 200210 |
| | | | US 2000574668 | A | 20000518 | |
| | | | US 2000733425 | A | 20001208 | |
| US 20020016816 | A1 | 20020207 | US 95508083 | A | 19950727 | 200213 |
| | | | US 98130624 | A | 19980806 | |
| | | | US 99134782 | P | 19990519 | |
| | | | US 99314648 | A | 19990519 | |
| | | | US 99342689 | A | 19990629 | |
| | | | US 2001895748 | A | 20010629 | |
| US 20020028000 | A1 | 20020307 | US 99134782 | P | 19990519 | 200221 |
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Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

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Abstract (Basic): WO 200070523 A1

NOVELTY - The digital source data is encoded to indicate plural bit auxiliary data steganographically. The encoded data is input to intervening computer. The payment is credited in response to forwarded data. The plural bit auxiliary data is tested by testing source program in reference to encoding attributes.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) objective media recognition system;

- (b) objective media recognizing method;
- (c) reprogrammable watermark detector;
- (d) audio data linking method;
- (e) electronic money transaction method;
- (f) video data distribution method in Internet;
- (g) upgrade trigger encoding method;
- (h) watermark detector reconfiguring method

USE - For watermarking audio and video data in radio/TV broadcasting.

ADVANTAGE - The owner of objective data is determined easily with reference to the decoded plural audio-bit data, thereby payment credit is done quickly. The command signal is used to trigger the change in operation of watermark detector, thereby signal is interpreted during decoding of watermark easy.

DESCRIPTION OF DRAWING(S) - The figure shows the connection diagram of participants and channels involved in distribution of music data.

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Title Terms: DIGITAL; WATERMARK; METHOD; AUDIO; VIDEO; DATA; BROADCAST;
 ENCODE; DIGITAL; SOURCE; DATA; OBTAIN; AUXILIARY; BIT; DATA; RESPOND;
 RECEIVE; AUXILIARY; DATA

Derwent Class: P27; P85; P86; Q47; S06; T01; T04; T05; W02; W04

International Patent Class (Main): G06F-013/00; G06F-015/16; G06F-017/00;
 G06F-017/60; G06K-009/00; G10L-021/00; H04K-001/00; **H04L-009/00**

International Patent Class (Additional): G06F-009/00; G06T-001/00;
 G09C-005/00; G10L-011/00; **H04L-009/32** ; H04N-001/387; H04N-007/08;
 H04N-007/081; H04N-007/16; H04N-007/167

File Segment: EPI; EngPI

3/5/45 (Item 25 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013873291 **Image available**

WPI Acc No: 2001-357503/200138

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XRPX Acc No: N01-259813

Operating a computer system e.g. for linking to internet resources from physical and electronic objects, using new user interfaces, such as identifiers that serve to trigger object-appropriate responses from

computer

Patent Assignee: DIGIMARC CORP (DIGI-N); RHOADS G B (RHOA-I); BRADLEY B A (BRAD-I); CONWELL W Y (CONW-I); LEVY K L (LEVY-I); CASTLE J B (CAST-I); HEIN W (HEIN-I); ONEY C (ONEY-I); SEDER P (SEDE-I); DAVIS B L (DAVI-I); EVANS D B (EVAN-I); DECKER S K (DECK-I); HANNIGAN B T (HANN-I); KLONSKY A (KLON-I); RODRIGUEZ T F (RODR-I); SEDER P A (SEDE-I); SHARMA R K (SHAR-I); CARR J S (CARR-I)

Inventor: CARR J S; DAVIS B L; GROSSI B J; HEIN W C; MACINTOSH B T; MCKINLEY T J; PERRY B W; **RHOADS G B**; RODRIQUEZ T F; SEDER P A; RODRIGUEZ T F; BRADLEY B A; CONWELL W Y; LEVY K L; CASTLE J B; HEIN W; ONEY C; SEDER P; EVANS D B; DECKER S K; HANNIGAN B T; KLONSKY A; **SHARMA**

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Number of Countries: 097 Number of Patents: 020

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Priority Applications (No Type Date): US 2000552998 A 20000419; US 99314648 A 19990519; US 99141468 P 19990629; US 99342688 A 19990629; US 99342689 A 19990629; US 99342971 A 19990629; US 99343101 A 19990629; US 99343104 A 19990629; US 99151586 P 19990830; US 99158015 P 19991006; US 99163332 P 19991103; US 99164619 P 19991110; US 2000531076 A 20000318; US 2000543125 A 20000405; US 2000547664 A 20000412; US 2001758532 A 20010110; US 99134782 P 19990519; US 99476686 A 19991230; US 2000571422 A 20000515; US 2000574726 A 20000518; US 2001858189 A 20010514; US 2001888339 A 20010621; US 99163322 P 19991103; US 2000636102 A 20000810; US 2001915824 A 20010726; US 200112676 A 20011105; US 2002113099 A 20020329; US 200286180 A 20020225; WO 2002US15187 A 20020514; US 95508083 A 19950727; US 96637531 A 19960425; WO 96US6618 A 19960507; US 96649419 A 19960516; US 98169088 A 19981008; US 99473396 A 19991228; US 2000178028 P 20000126; US 2000491534 A 20000126; US 2000504239 A 20000215; US 2000563664 A 20000502; US 2000640806 A 20000817; US 2000670115 A 20000926; US 2001769017 A 20010124; US 2002147228 A 20020515; US 2000709255 A 20001108; WO 2001US14014 A 20010430; US 2001288272 P 20010502; US 2001297229 P 20010607; US 2002355856 P 20020210; US 2002139147 A 20020502; US 98130624 A 19980806; US 2001895748 A 20010629; US 98186962 A 19981105

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| Patent No | Kind | Lang | Pg | Main IPC | Filing Notes |
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| Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI | | | | | |
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| Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW | | | | | |
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Abstract (Basic): EP 1054335 A2

NOVELTY - The method entails providing a frame of image data, decoding plural-bit identifier data from the image data, consulting the registry database to identify a software program corresponding to the identifier data, and invoking the identifier software program. 1.

DETAILED DESCRIPTION - Several fields of the image data are decoded stenographically, with at least one field comprising the identifier data, and another field is provided to the identified software program for its use. AN INDEPENDENT CLAIM is made for: 1. Method of data processing on computer system; 2. A greeting card comprising a substrate with visually-perceptible indicia printed on it; 3. Method of providing a customized greeting card; 4. Method of printing a magazine; 5. Method of determining consumer response to print advertising; 6. Method of interacting with magazine using a computer; 7. Computer peripheral and its use; 8. Electronic commerce method; 9. Image-based network navigation method permitting a user to link to remote computer; and 10. Network computer system, responsive to watermark data sent from a software program on a remote computer.

USE - Application of new user interfaces to computers, which extend into everyday world beyond the mouse and keyboard, enabling objects to communicate their identities and functions to attendant devices.

ADVANTAGE - Facilitates use of application program for data processing on computer system, encode binary data which can be decoded by an image processing device and used to direct a computer to a web site where an image, video, and/or audio presentation corresponds to the card is provided. Enables use of electronic commerce to use pre-stored customer profile information.

DESCRIPTION OF DRAWING(S) - Drawing shows the main process components of an illustrative system employing the present technology.
pp; 90 DwgNo 1/19

Title Terms: OPERATE; COMPUTER; SYSTEM; LINK; RESOURCE; PHYSICAL;

ELECTRONIC; OBJECT; NEW; USER; INTERFACE; IDENTIFY; SERVE; TRIGGER;
OBJECT; APPROPRIATE; RESPOND; COMPUTER

Derwent Class: P27; P74; P85; Q47; T01; T05; W02; W04

International Patent Class (Main): B41F-001/00; G06F-013/00; G06F-015/00;

G06F-015/16; G06F-017/00; G06F-017/30; G06F-017/60; G06K-009/00;

G09C-005/00; H04L-009/00 ; H04M-001/00

International Patent Class (Additional): G06F-012/00; G06K-007/00;

G06K-009/36; G06K-019/06; H04B-001/38; H04K-001/00
File Segment: EPI; EngPI

3/5/46 (Item 26 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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013871059 **Image available**
WPI Acc No: 2001-355271/200137
XRPX Acc No: N01-258166

Security device for preventing large numbers of items of merchandise
being removed from a display rack has two inter fitting base members
Patent Assignee: ALPHA SECURITY PROD INC (ALPH-N); LEVY K L (LEVY-I);
RHOADS G B (RHOA-I); BELDEN D D (BELD-I); CHRISTIAN T H (CHRI-I); HUEHNER
D (HUEH-I); JAEB M (JAEB-I); MICHAEL R L (MICH-I); SEDON N M (SEDO-I)
Inventor: BELDEN D D; CHRISTIAN T H; HUEHNER D; JAEB M; MICHAEL R L; SEDON
N M; LEVY K L; RHOADS G B; MICHAEL R J

Number of Countries: 095 Number of Patents: 011

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Priority Applications (No Type Date): US 99163322 P 19991103; US 99134782 P
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2000705435 A 20001103

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
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US 20020032864 A1 H04L-009/00 Provisional application US 99134782

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Provisional application US 99163322
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CIP of application US 99476686
CIP of application US 2000571422
CIP of application US 2000574726

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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR
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Designated States (Regional): DE FR GB
DE 6020008014 E A47F-005/08 Based on patent EP 1227744
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Cont of application US 2000705435
Cont of application US 2002272726
Cont of patent US 6474478
Cont of patent US 6659291

Abstract (Basic): WO 200132061 A2

NOVELTY - A security device comprises a first rod (62) to carry merchandise extends outwardly from the display board. The first rod has an outer end over which the items (14) of merchandise are removed from the device and an end assembly adjacent to the outer end of the first rod.

DETAILED DESCRIPTION - The assembly includes an inner base member (224) connected to the display board and an outer base member (266) that may be selectively locked to the inner base member where the outer base member prevents the inner base member being removed from the display board

USE - Prevents large numbers of items being removed from a display rack.

ADVANTAGE - The invention slows a shoplifter by forcing them to remove the items of merchandise one by one. A security device may be locked to the display board so that the shoplifter cannot remove the entire device with the merchandise.

DESCRIPTION OF DRAWING(S) - The drawing shows a perspective view of the safety device.

Items (14)
First rod (64)
Inner base member (224)
Outer base member (226)
pp; 29 DwgNo 15/32

Title Terms: SECURE; DEVICE; PREVENT; NUMBER; ITEM; MERCHANDISE; REMOVE;
DISPLAY; RACK; TWO; INTER; FIT; BASE; MEMBER
Derwent Class: P27; Q47; T01; T05; W02; W04
International Patent Class (Main): A47F-005/00; A47F-005/08; B42F-001/00;
E05B-073/00; H04L-009/00
International Patent Class (Additional): G06F-017/60
File Segment: EPI; EngPI

3/5/47 (Item 27 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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WPI Acc No: 2001-022904/200103

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

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2003-174573; 2003-199024; 2003-238411; 2003-266622; 2003-268467;
2003-275465; 2003-327510; 2003-331365; 2003-353776; 2003-362315;
2003-391983; 2003-392393; 2003-401297; 2003-418353; 2003-418436;
2003-419904; 2003-465734; 2003-492022; 2003-557490; 2003-587433;
2003-597620; 2003-615418; 2003-615425; 2003-655604; 2003-655616;
2003-655715; 2003-656012; 2003-658647; 2003-659691; 2003-687554;
2003-707329; 2003-730410; 2003-767701; 2003-777048; 2003-800216;
2003-800961; 2003-802603; 2003-829683; 2003-897231; 2004-031964;
2004-041644; 2004-059015; 2004-059948; 2004-070353; 2004-098221;
2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;
2004-386915

XRPX Acc No: N01-017786

**Photographic paper produces image based on coextensive auxiliary
information signal that is encoded as patterned physical characteristics**

Patent Assignee: DIGIMARC CORP (DIGI-N)

Inventor: **RHOADS G B**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6111954 | A | 20000829 | US 94215289 | A | 19940317 | 200103 B |
| | | | US 94327426 | A | 19941021 | |
| | | | US 95438159 | A | 19950508 | |
| | | | US 95534005 | A | 19950925 | |
| | | | US 96637531 | A | 19960425 | |
| | | | US 98169088 | A | 19981008 | |

Priority Applications (No Type Date): US 96637531 A 19960425; US 94215289 A
19940317; US 94327426 A 19941021; US 95438159 A 19950508; US 95534005 A
19950925; US 98169088 A 19981008

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|---------------------------------|
| US 6111954 | A | | 69 | H04L-009/00 | CIP of application US 94215289 |
| | | | | | CIP of application US 94327426 |
| | | | | | CIP of application US 95438159 |
| | | | | | CIP of application US 95534005 |
| | | | | | Cont of application US 96637531 |
| | | | | | CIP of patent US 5768426 |
| | | | | | Cont of patent US 5822436 |
| | | | | | CIP of patent US 5832119 |
| | | | | | CIP of patent US 5850481 |

Abstract (Basic): US 6111954 A

NOVELTY - An auxiliary information signal is encoded as a patterned

physical characteristics which is coextensive with the paper, so as to produce an image.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for photographic paper processing method.

USE - For copying photographs with copyright protection function.

ADVANTAGE - Facilitates the consumer's compliance with copyright law, serves the photographer whose owns copyright and aids the copy service and supply vendor.

DESCRIPTION OF DRAWING(S) - The figure shows registration process for subliminal graticule using inclined axes.

pp; 69 DwgNo 35C/37

Title Terms: PHOTOGRAPH; PAPER; PRODUCE; IMAGE; BASED; AUXILIARY;

INFORMATION; SIGNAL; ENCODE; PATTERN; PHYSICAL; CHARACTERISTIC

Derwent Class: S06; W02; W04

International Patent Class (Main): H04L-009/00

File Segment: EPI

3/5/48 (Item 28 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013318645

WPI Acc No: 2000-490584/200043

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-013122;

2000-194736; 2000-195398; 2000-365779; 2000-464989; 2000-647035;

2001-022904; 2001-335855; 2001-357503; 2001-374044; 2001-397673;

2001-425330; 2001-570080; 2001-580828; 2001-581298; 2001-581665;

2001-595705; 2001-607222; 2002-011177; 2002-041658; 2002-062159;

2002-082807; 2002-154357; 2002-163681; 2002-179003; 2002-188040;

2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;

2002-238913; 2002-239839; 2002-254659; 2002-256143; 2002-268672;

2002-315095; 2002-361599; 2002-361694; 2002-370756; 2002-382444;

2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-403568;

2002-405083; 2002-413035; 2002-416925; 2002-435593; 2002-470507;

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2002-642228; 2002-654787; 2002-672857; 2002-673567; 2002-681419;

2002-691185; 2002-697772; 2002-698265; 2003-045908; 2003-074123;

2003-090293; 2003-137905; 2003-140183; 2003-174573; 2003-199024;

2003-238411; 2003-266622; 2003-268467; 2003-275465; 2003-327510;

2003-331365; 2003-353776; 2003-362315; 2003-391983; 2003-392393;

2003-401297; 2003-418353; 2003-418436; 2003-419904; 2003-465734;

2003-492022; 2003-557490; 2003-587433; 2003-597620; 2003-615418;

2003-615425; 2003-655604; 2003-655616; 2003-655715; 2003-656012;

2003-658647; 2003-659691; 2003-687554; 2003-707329; 2003-730410;

2003-767701; 2003-777048; 2003-800216; 2003-800961; 2003-802603;

2003-829683; 2003-897231; 2004-031964; 2004-041644; 2004-059015;

2004-059948; 2004-070353; 2004-098221; 2004-119479; 2004-155399;

2004-179244; 2004-179245; 2004-303569; 2004-386915

XRAM Acc No: C00-147307

XRPX Acc No: N00-364099

Counterfeit deterrence method for recognition of original security documents such as passports, visa, stock certificates, involves recognizing security document by directing web browser to related web site

Patent Assignee: DIGIMARC CORP (DIGI-N)

Inventor: CARR J S; DAVIS B L; RHOADS G B

Number of Countries: 088 Number of Patents: 005

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|---------------|------|----------|---------------|------|----------|----------|
| WO 200036785 | A1 | 20000622 | WO 99US30217 | A | 19991216 | 200043 B |
| AU 200023695 | A | 20000703 | AU 200023695 | A | 19991216 | 200046 |
| EP 1142190 | A1 | 20011010 | EP 99967414 | A | 19991216 | 200167 |
| | | | WO 99US30217 | A | 19991216 | |
| KR 2002003357 | A | 20020112 | KR 2001707645 | A | 20010618 | 200247 |

JP 2002532812 W 20021002 WO 99US30217 A 19991216 200279
JP 2000588925 A 19991216

Priority Applications (No Type Date): US 98112955 P 19981218

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200036785 A1 E 18 H04L-009/00

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200023695 A Based on patent WO 200036785

EP 1142190 A1 E Based on patent WO 200036785

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI

KR 2002003357 A G06F-017/00

JP 2002532812 W 20 G06F-017/60 Based on patent WO 200036785

Abstract (Basic): WO 200036785 A1

NOVELTY - The method involves recognizing a security document by directing a web browser to a related web site.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(i) Computer storage medium which stores instructions for causing a computer to perform recognition of security documents. (ii) Digital water marking method, which involves changing the luminosity of the printed image at various areas, to encode digital data steganographically. The watermark signal is improved in the region of the image that has relatively uniform inking, by making small points within such region essentially devoid of ink. One or more points have a dimension of 100 mu or less.

USE - For recognition of original security documents such as passports, visa, postal stamps, stock certificates, travelers cheque, concert ticket and lottery ticket.

ADVANTAGE - The method provides an effective and rapidly deployable global solution to the growing digital counterfeiting problem. Security document detection using digital watermark is performed readily and reliably during typical operations of a personal computer system. The method prevents the acquisition and printing of security document images, while providing artists with a central resource to obtain approved images for use in marketing, communications and other legitimate uses.

pp; 18 DwgNo 0/0

Title Terms: COUNTERFEIT; METHOD; RECOGNISE; ORIGINAL; SECURE; DOCUMENT;
PASSPORT; STOCK; CERTIFY; RECOGNISE; SECURE; DOCUMENT; DIRECT; WEB;
RELATED; WEB; SITE

Derwent Class: A85; G05; P85; W01

International Patent Class (Main): G06F-017/00; G06F-017/60; H04L-009/00

International Patent Class (Additional): C09D-011/00; G06T-001/00;

G09C-005/00; H04L-009/32; H04N-001/387; H04N-001/40

File Segment: CPI; EPI; EngPI

3/5/49 (Item 29 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013293054 **Image available**

WPI Acc No: 2000-464989/200040

Related WPI Acc No: 1996-518986; 1997-310156; 1998-009129; 1998-110064;

1998-286225; 1999-204782; 1999-444465; 2000-013122; 2000-194736;
2000-195398; 2000-365779; 2000-490584; 2000-647035; 2001-022904;
2001-335855; 2001-357503; 2001-374044; 2001-397673; 2001-425330;
2001-570080; 2001-580828; 2001-581298; 2001-581665; 2001-595705;
2001-607222; 2002-011177; 2002-041658; 2002-062159; 2002-082807;
2002-154357; 2002-188040; 2002-205513; 2002-224088; 2002-226224;
2002-235400; 2002-236852; 2002-238913; 2002-239839; 2002-256143;

2002-268672; 2002-315095; 2002-361599; 2002-361694; 2002-382444;
 2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-405083;
 2002-413035; 2002-416925; 2002-435593; 2002-479804; 2002-498079;
 2002-507125; 2002-508021; 2002-528580; 2002-556177; 2002-590019;
 2002-636862; 2002-654787; 2002-672857; 2002-673567; 2002-681419;
 2002-698265; 2003-045908; 2003-074123; 2003-137905; 2003-140183;
 2003-268467; 2003-327510; 2003-391983; 2003-401297; 2003-419904;
 2003-465734; 2003-587433; 2003-615418; 2003-615425; 2003-655616;
 2003-655715; 2003-656012; 2003-730410; 2003-767701; 2003-777048;
 2003-800216; 2003-897231; 2004-041644; 2004-059948; 2004-070353;
 2004-386915

XRPX Acc No: N00-347074

Self validating security document e.g. passports, has watermark data in multiple areas such that validation is performed by automatic comparison of data with user's physical characteristics

Patent Assignee: DIGIMARC CORP (DIGI-N); CARR J S (CARR-I); PERRY B W (PERR-I); RHOADS G B (RHOA-I)

Inventor: CARR J S; PERRY B W; **RHOADS G B**

Number of Countries: 086 Number of Patents: 006

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
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| WO 200031675 | A2 | 20000602 | WO 99US27012 | A | 19991113 | 200040 B |
| AU 200016248 | A | 20000613 | AU 200016248 | A | 19991113 | 200043 |
| EP 1131769 | A2 | 20010912 | EP 99958983 | A | 19991113 | 200155 |
| | | | WO 99US27012 | A | 19991113 | |
| US 20020061120 | A1 | 20020523 | US 9874034 | A | 19980506 | 200239 |
| | | | US 98109259 | P | 19981119 | |
| | | | US 99442780 | A | 19991118 | |
| | | | US 2000512993 | A | 20000224 | |
| | | | US 2001763847 | A | 20010227 | |
| | | | US 200111129 | A | 20011109 | |
| US 6389151 | B1 | 20020514 | US 98109259 | P | 19981119 | 200239 |
| | | | US 99442780 | A | 19991118 | |
| US 20030138128 | A1 | 20030724 | US 95512993 | A | 19950809 | 200356 |
| | | | US 96763847 | A | 19961204 | |
| | | | US 98109259 | P | 19981119 | |
| | | | US 98198022 | A | 19981123 | |
| | | | US 99442780 | A | 19991118 | |
| | | | US 2000198138 | P | 20000417 | |
| | | | US 2000198849 | P | 20000421 | |
| | | | US 2001837564 | A | 20010417 | |
| | | | US 200111129 | A | 20011109 | |
| | | | US 2002326575 | A | 20021220 | |

Priority Applications (No Type Date): US 98109259 P 19981119; US 9874034 A 19980506; US 99442780 A 19991118; US 2000512993 A 20000224; US 2001763847 A 20010227; US 200111129 A 20011109; US 95512993 A 19950809; US 96763847 A 19961204; US 98198022 A 19981123; US 2000198138 P 20000417; US 2000198849 P 20000421; US 2001837564 A 20010417; US 2002326575 A 20021220

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200031675 A2 E 19 G06K-000/00

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200016248 A Based on patent WO 200031675

EP 1131769 A2 E G06K-001/00 Based on patent WO 200031675

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

US 20020061120 A1 G06K-009/00 CIP of application US 9874034
 Provisional application US 98109259
 Cont of application US 99442780
 Cont of application US 2000512993
 CIP of application US 2001763847

US 6389151 B1 G06K-009/00 Provisional application US 98109259
US 20030138128 A1 G06K-009/00 Cont of application US 95512993
Cont of application US 96763847
Provisional application US 98109259
CIP of application US 98198022
Cont of application US 99442780
Provisional application US 2000198138
Provisional application US 2000198849
CIP of application US 2001837564
CIP of application US 200111129
Cont of patent US 5841886
Cont of patent US 6389151
CIP of patent US 6546112

Abstract (Basic): WO 200031675 A2

NOVELTY - The security documents are provided with watermark data (15) on multiple areas. The validation of the documents is performed by automatic comparison of data with user's physical characteristics.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) document validation system;

(b) document production method

USE - E.g. passports, driving licenses, credit cards.

ADVANTAGE - Validation is done entirely automatically, so that need for human intervention is reduced.

DESCRIPTION OF DRAWING(S) - The figure illustrates security document.

Watermark data (15)

pp; 19 DwgNo 1/3

Title Terms: SELF; VALID; SECURE; DOCUMENT; PASSPORT; WATERMARK; DATA;
MULTIPLE; AREA; VALID; PERFORMANCE; AUTOMATIC; COMPARE; DATA; USER;
PHYSICAL; CHARACTERISTIC

Derwent Class: T01; T04

International Patent Class (Main): G06K-000/00; G06K-001/00; G06K-009/00

International Patent Class (Additional): G06K-009/36; H04L-009/00

File Segment: EPI

3/5/50 (Item 30 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

012841290 **Image available**

WPI Acc No: 2000-013122/200001

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

1998-110064; 1998-286225; 1999-204782; 1999-444465; 2000-194736;

2000-195398; 2000-365779; 2000-464989; 2000-490584; 2000-647035;

2001-022904; 2001-335855; 2001-357503; 2001-374044; 2001-397673;

2001-425330; 2001-570080; 2001-580828; 2001-581298; 2001-581665;

2001-595705; 2001-607222; 2002-011177; 2002-041658; 2002-062159;

2002-082807; 2002-154357; 2002-163681; 2002-179003; 2002-188040;

2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;

2002-238913; 2002-239839; 2002-254659; 2002-256143; 2002-268672;

2002-315095; 2002-361599; 2002-361694; 2002-370756; 2002-382444;

2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-403568;

2002-405083; 2002-413035; 2002-416925; 2002-435593; 2002-470507;

2002-479804; 2002-498079; 2002-498923; 2002-507125; 2002-508021;

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2002-654787; 2002-672857; 2002-673567; 2002-691185; 2002-697772;

2003-045908; 2003-074123; 2003-090293; 2003-137905; 2003-140183;

2003-174573; 2003-199024; 2003-238411; 2003-266622; 2003-268467;

2003-275465; 2003-327510; 2003-331365; 2003-353776; 2003-362315;

2003-391983; 2003-392393; 2003-401297; 2003-418353; 2003-418436;

2003-419904; 2003-465734; 2003-492022; 2003-557490; 2003-587433;

2003-597620; 2003-615418; 2003-615425; 2003-655604; 2003-655616;

2003-655715; 2003-656012; 2003-658647; 2003-659691; 2003-687554;

2003-707329; 2003-730410; 2003-767701; 2003-777048; 2003-800216;

2003-800961; 2003-802603; 2003-829683; 2003-897231; 2004-031964;
2004-041644; 2004-059015; 2004-059948; 2004-070353; 2004-098221;
2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;
2004-386915

XRPX Acc No: N00-010182

**Digital watermark based counterfeit prevention method for bank notes,
security documents, etc.**

Patent Assignee: DIGIMARC CORP (DIGI-N); RHOADS G B (RHOA-I); GUSTAFSON A E
(GUST-I); BRUNDAGE T J (BRUN-I); CARR J S (CARR-I)

Inventor: **RHOADS G B** ; GUSTAFSON A E; BRUNDAGE T J; CARR J S

Number of Countries: 087 Number of Patents: 034

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| WO 9953428 | A1 | 19991021 | WO 99US8252 | A | 19990414 | 200001 B |
| EP 961239 | A2 | 19991201 | EP 99107280 | A | 19990414 | 200001 |
| AU 9935629 | A | 19991101 | AU 9935629 | A | 19990414 | 200013 |
| GB 2353168 | A | 20010214 | WO 99US8252 | A | 19990414 | 200110 |
| | | | GB 200023204 | A | 20000921 | |
| US 6285776 | B1 | 20010904 | US 94327426 | A | 19941021 | 200154 |
| | | | US 95438159 | A | 19950508 | |
| | | | US 9882228 | P | 19980416 | |
| | | | US 9874034 | A | 19980506 | |
| | | | US 99293602 | A | 19990415 | |
| US 20010022848 | A1 | 20010920 | US 94215289 | A | 19940317 | 200156 |
| | | | US 96614521 | A | 19960315 | |
| | | | US 96649419 | A | 19960516 | |
| | | | US 97967693 | A | 19971112 | |
| | | | US 9882228 | P | 19980416 | |
| | | | US 9874034 | A | 19980506 | |
| | | | US 98127502 | A | 19980731 | |
| | | | US 2001761349 | A | 20010116 | |
| US 20010031065 | A1 | 20011018 | US 94215289 | A | 19940317 | 200166 |
| | | | US 96614521 | A | 19960315 | |
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| US 6345104 | B1 | 20020205 | US 94215289 | A | 19940317 | 200211 |
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| | | | US 9874034 | A | 19980506 | |
| | | | US 99293602 | A | 19990415 | |
| | | | US 2001898914 | A | 20010703 | |
| JP 2002511685 | W | 20020416 | WO 99US8252 | A | 19990414 | 200242 |
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| US 20020080996 | A1 | 20020627 | US 94215289 | A | 19940317 | 200245 |
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| | | | US 99433104 | A | 19991103 | |
| | | | US 2000498223 | A | 20000203 | |
| | | | US 2000574726 | A | 20000518 | |
| | | | US 2002112647 | A | 20020328 | |
| GB 2353168 | B | 20021016 | WO 99US8252 | A | 19990414 | 200276 |
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| US 20020172397 | A1 | 20021121 | US 9871983 | P | 19980120 | 200279 |
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| | | | US 99234780 | A | 19990120 | |
| | | | US 99287940 | A | 19990407 | |
| | | | US 99134782 | P | 19990519 | |
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| | | | US 2000498223 | A | 20000203 | |
| | | | US 2000574726 | A | 20000518 | |
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| GB 2375254 | A | 20021106 | GB 200023204 | A | 20000921 | 200281 |
| | | | GB 200219190 | A | 20020816 | |
| US 20020176600 | A1 | 20021128 | US 9871983 | P | 19980120 | 200281 |
| | | | US 9882228 | P | 19980416 | |
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| | | | US 99287940 | A | 19990407 | |
| | | | US 99134782 | P | 19990519 | |
| | | | US 2000498223 | A | 20000203 | |
| | | | US 2000574726 | A | 20000518 | |
| | | | US 2002113818 | A | 20020328 | |
| US 20020181735 | A1 | 20021205 | US 9871983 | P | 19980120 | 200301 |
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Abstract (Basic): WO 9953428 A1

NOVELTY - The face of a bank note is marked with a machine readable, imperceptible digital data containing several bits. The predetermined digital data for a bank note is encoded on the face of the bank note by slightly altering the distribution of an ink on the face of the bank note. Several bits in a digital data are encoded redundantly across the bank note rather than in a localized region.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) bank note validating apparatus;
- (b) a cash processing apparatus

USE - For bank notes, travelers checks, passports, stock certificates, security documents etc.

ADVANTAGE - Prevents reproduction of bank notes and security documents reliably.

DESCRIPTION OF DRAWING(S) - The figure shows change in line width across regions in bank note.

pp; 41 DwgNo 5/10

Title Terms: DIGITAL; WATERMARK; BASED; COUNTERFEIT; PREVENT; METHOD; BANK; NOTE; SECURE; DOCUMENT

Derwent Class: P75; S06; T01; T04; T05; W02; W04

International Patent Class (Main): G06K-009/00; G07D-007/00; H04K-001/00; H04L-009/00 ; H04N-001/387

International Patent Class (Additional): B41N-001/00; G06K-009/36; G06T-001/00; G07D-007/12; H04N-001/40; H04N-007/167

File Segment: EPI; EngPI

3/5/51 (Item 31 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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WPI Acc No: 1999-444465/199937

Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;

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 2004-386915

XRPX Acc No: N99-331496

Using watermarks to determine authenticity and history of particular document or image in steganography, with watermarks having different characteristics so they are affected in different manner

Patent Assignee: DIGIMARC CORP (DIGI-N); GUSTAFSON A E (GUST-I); RHOADS G B (RHOA-I)

Inventor: GUSTAFSON A; **RHOADS G** ; GUSTAFSON A E; **RHOADS G B**

Number of Countries: 027 Number of Patents: 015

Patent Family:

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Priority Applications (No Type Date): US 9871983 P 19980120; US 99234780 A 19990120; US 2000616462 A 20000714; US 95436134 A 19950508; US 97951858 A 19971016; US 99433104 A 19991103; US 200112703 A 20011207; US 99442440 A 19991117; US 200112992 A 20011207; US 9882228 P 19980416; US 99287940 A 19990407; US 99134782 P 19990519; US 2000498223 A 20000203; US 2000574726 A 20000518; US 2002112647 A 20020328; US 2002113854 A 20020328; US 2002113818 A 20020328; US 2002113910 A 20020328

Patent Details:

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Designated States (National): AU BR CA IL JP KR MX

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

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Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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Provisional application US 99134782

CIP of application US 99433104

Div ex application US 2000498223

CIP of application US 2000574726

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Cont of patent US 5748763

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Cont of application US 95436134
Cont of application US 97951858
Provisional application US 9871983
CIP of application US 99234780
Cont of application US 99433104
CIP of application US 99442440
Cont of patent US 5748763
Cont of patent US 6026193
CIP of patent US 6542618

Abstract (Basic): WO 9936876 A2

NOVELTY - Method embeds 2 watermarks with different characteristics in document, with watermarks chosen so they are affected in different way if documents are subsequently copied. Detection process reads each watermark and compares characteristics. Wear and handling may change document's digital watermark characteristics, but relationship between them still tells whether document is original or copy of it.

USE - For using watermarks to determine the authenticity and history of particular document or image.

ADVANTAGE - Provides improved technique for using steganography and digital watermark technology.

DESCRIPTION OF DRAWING(S) - The drawing shows the paths that a document and a copy may follow.

pp; 22 DwgNo 1/4

Title Terms: WATERMARK; DETERMINE; AUTHENTICITY; HISTORY; DOCUMENT; IMAGE;

WATERMARK; CHARACTERISTIC; SO; AFFECT; MANNER

Derwent Class: S06; T01; T04; T05; W02; W04

International Patent Class (Main): G06K-000/00; G06K-001/00; G06K-009/00;

H04N-001/387

International Patent Class (Additional): G06K-015/00; G06T-001/00;

H04L-009/00 ; H04N-001/46; H04N-001/60

File Segment: EPI

3/5/52 (Item 32 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

012151185 **Image available**
WPI Acc No: 1998-568097/199848
Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-009129;
1998-110064; 1998-286225; 2000-194736; 2001-022904
XRPX Acc No: N98-441985

**Photographic emulsion paper - exposes and develops image which comprises
image signal encoded as patterned physical characteristic co-extensive
with paper**

Patent Assignee: DIGIMARC CORP (DIGI-N)

Inventor: **RHOADS G B**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5822436 | A | 19981013 | US 96637531 | A | 19960425 | 199848 B |

Priority Applications (No Type Date): US 96637531 A 19960425

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 5822436 | A | | 70 | H04L-009/00 | |

Abstract (Basic): US 5822436 A

The photographic emulsion paper exposes and develops an image which
comprises an encoded auxiliary information signal. The signal is
encoded as a patterned physical characteristic co- extensive with
paper.

USE - For wedding and portrait photographers:

ADVANTAGE - Permits consumers to make amateur or even professional
grade copies of photographs.

Dwg.1/37

Title Terms: PHOTOGRAPH; EMULSION; PAPER; EXPOSE; DEVELOP; IMAGE; COMPRISE;
IMAGE; SIGNAL; ENCODE; PATTERN; PHYSICAL; CHARACTERISTIC; CO; EXTEND;
PAPER

Index Terms/Additional Words: STEGANOGRAPHY

Derwent Class: W01

International Patent Class (Main): **H04L-009/00**

File Segment: EPI

3/5/53 (Item 33 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

011592000
WPI Acc No: 1998-009129/199801
Related WPI Acc No: 1995-200530; 1996-518986; 1997-310156; 1998-110064;
1998-286225; 1999-204782; 1999-444465; 2000-013122; 2000-194736;
2000-195398; 2000-365779; 2000-464989; 2000-490584; 2000-647035;
2001-022904; 2001-335855; 2001-357503; 2001-374044; 2001-397673;
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2002-082807; 2002-154357; 2002-163681; 2002-179003; 2002-188040;
2002-205513; 2002-224088; 2002-226224; 2002-235400; 2002-236852;
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2002-391512; 2002-392708; 2002-393501; 2002-394013; 2002-403568;
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 2004-119479; 2004-155399; 2004-179244; 2004-179245; 2004-303569;
 2004-386915

XRPX Acc No: N98-007164

**Multi-computer system with network for embedding and reading watermark -
 facilitates scale and rotation registration for steganographic decoding
 using rotationally symmetric steganographically embedded patterns and
 subliminal digital graticules, for enhanced security in financial
 transactions**

Patent Assignee: DIGIMARC CORP (DIGI-N); RHOADS G B (RHOA-I)

Inventor: **RHOADS G B**

Number of Countries: 022 Number of Patents: 017

Patent Family:

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Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC

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Abstract (Basic): WO 9743736 A

The multicomputer system includes a first digital computer connected to an input device, an output device and a memory storing several creator identifiers and creator contact data corresponding to the identifiers. A second digital computer is connected to second input and output devices and is programmed to embed a watermark in a digital photographic image.

The watermark includes several creator identifiers. A third computer with input and output devices reads the watermark in the image to reveal one of the creator identifiers. A network communicates the revealed identifier to the first computer to obtain the contact data corresponding to one of the several identifiers from the memory.

USE - For providing improvements to steganographic systems and their applications.

ADVANTAGE - Provides improved techniques for decoding without access to unencoded originals and improves robustness of steganographic coding in motion pictures and or in presence of lossy compression and decompression.

Dwg.0/65

Title Terms: SYSTEM; NETWORK; EMBED; READ; WATERMARK; FACILITATE; SCALE; ROTATING; REGISTER; DECODE; ROTATING; SYMMETRICAL; EMBED; PATTERN; SUBLIMINAL; DIGITAL; GRATICULE; ENHANCE; SECURE; FINANCIAL; TRANSACTION

Derwent Class: T01

International Patent Class (Main): G06K-009/00; G06K-009/36; H04K-001/00;

H04L-009/00

International Patent Class (Additional): G06K-009/46

File Segment: EPI

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DIALOG(R) File 350:Derwent WPIX
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Related WPI Acc No: 1995-200530; 1997-310156; 1998-009129; 1998-110064;

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XRFX Acc No: N96-437282

**Steganographic methods for adding cipher or cryptographic identification
to signals - adding randomised identification signal at very low power
levels to original signal allowing subsequent detection**

Patent Assignee: DIGIMARC CORP (DIGI-N); RHOADS G B (RHOA-I); CARR J S
(CARR-I)

Inventor: RHOADS G B ; CARR J S; RHOADS G

Number of Countries: 026 Number of Patents: 053

Patent Family:

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Abstract (Basic): WO 9636163 A

The steganographic systems can be applied to signals of one, two or more dimensions. In a simple version the identification signal that is to be added to an original signal can be of any length, e.g. 8 to 128 bits. The identification signal is preceded by a defined pattern, e.g. 0101 that is used as an aid in detection. The digital signal is added to the original signal at a low power level. This level is application specific and depends on the acceptable increase in noise levels.

A suspect image can then be normalised and have the original subtracted from it to extract the identification code. More complex methods are also defined.

USE/ADVANTAGE - E.g. for coding financial and secure documents, for counterfeit resistant cards, fraud deterrent systems for cellular telephony, and covert modem channels for video transmission. Also for photo duplication kiosks with automatic copyright detection and hot-linked images (e.g. with embedded URLs) for use on internet. Defines range of methods to add and identify signatures in electronic signals and images. Allows scale and rotation registration for signal decoding by using embedded patterns and subliminal graticules.

Dwg.29/41

Title Terms: METHOD; ADD; CIPHER; CRYPTOGRAPHIC; IDENTIFY; SIGNAL; ADD; RANDOM; IDENTIFY; SIGNAL; LOW; POWER; LEVEL; ORIGINAL; SIGNAL; ALLOW; SUBSEQUENT; DETECT

Derwent Class: P76; P85; T01; T03; T05; W01; W02; W04

International Patent Class (Main): B42D-015/00; G06F-013/00; G06F-015/16; G06K-009/00; G06K-009/36; G06T-009/00; H04K-001/00; H04K-001/02; H04L-001/00; **H04L-009/00** ; H04N-001/32; H04N-001/387

International Patent Class (Additional): G06T-001/00; G09C-001/00; H04M-001/66; H04N-001/00

File Segment: EPI; EngPI

3/5/55 (Item 35 from file: 350)

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XRPX Acc No: N95-157496

**Identification coding of input signal for consecutive identification -
 impresses identification code signal on carrier and uses cross
 correlation technique to compare samples with original and detect carrier**

Patent Assignee: DIGIMARC CORP (DIGI-N); RHOADS G B (RHOA-I); PINECONE
 IMAGING CORP (PINE-N)

Inventor: RHOADS G B

Number of Countries: 022 Number of Patents: 030

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Priority Applications (No Type Date): US 94327426 A 19941021; US 93154866 A 19931118; US 94215289 A 19940317; US 96614521 A 19960315; US 97967693 A 19971112; US 95436102 A 19950508; US 2000479304 A 20000106; US 2001776021 A 20010202; US 2000626984 A 20000727; WO 96US6618 A 19960507

Cited Patents: DE 3806411; EP 372601; EP 411232; GB 2196167; No-SR.Pub

Patent Details:

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Designated States (National): CA JP US

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

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| EP 737387 | A1 | E | 65 | H04B-001/66 | Based on patent WO 9514289 |
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Abstract (Basic): WO 9514289 A

An identification word is encoded onto an original signal by multiplying corresponding bit values, the resultant being accumulated in the composite signal. The composite signal is attenuated down to the acceptable perceived noise amplitude and the resultant signal added to the original to become the distributable signal. A suspect signal, which may have undergone multiple copies, compressions and decompressions is re-sampled and aligned onto the digital format of the original signal and the signal levels matched.

The original signal is then subtracted from the normalised suspect signal to produce a difference signal which is then cross correlated with the word all the embedded code signals to produce cross correlation values. Suspect signals are then identified by comparison of the peak cross correlation values with the original identification word.

USE/ADVANTAGE - In embedding identification codes in electronic, optical and physical media and later identification of copies. Robust method. Detects copies after various stages of processing and subsequent degradation of medium.

Dwg.6/12

Title Terms: IDENTIFY; CODE; INPUT; SIGNAL; CONSECUTIVE; IDENTIFY; IMPRESS;
IDENTIFY; CODE; SIGNAL; CARRY; CROSS; CORRELATE; TECHNIQUE; COMPARE;
SAMPLE; ORIGINAL; DETECT; CARRY

Derwent Class: P76; P85; T01; T03; T05; W01; W02; W04

International Patent Class (Main): B42D-015/00; G06F-015/16; G06K-009/00;
G06K-009/36; G06K-019/14; G09C-003/00; H04B-001/66; H04K-001/00;
H04K-001/02; H04L-001/00; **H04L-009/00** ; **H04L-009/32** ; H04N-001/387;
H04N-005/913

International Patent Class (Additional): G06F-017/60; G06T-001/00;
G09C-001/00; G09C-005/00; G11B-020/00; G11B-020/10

File Segment: EPI; EngPI